DOCUMENT RESUME

ED 457 918 JC 010 675

AUTHOR	Minkler, James E.
TITLE	The Efficacy of Learning Communities at Two Community Colleges.
PUB DATE	2000-05-05
NOTE	215p.; Doctoral Dissertation, University of Idaho.
PUB TYPE	Dissertations/Theses - Doctoral Dissertations (041)
EDRS PRICE	MF01/PC09 Plus Postage.
DESCRIPTORS	*Community Colleges; Comparative Analysis; *Cooperative Learning; *Learning Centers (Classroom); Learning Strategies; *Student Attitudes; Teaching Methods; Two Year Colleges
IDENTIFIERS	*Learning Communities; *Spokane Falls Community College WA

ABSTRACT

This study examined learning communities at two community colleges, North Idaho College (NIC) and Spokane Falls Community College (SFCC) (Washington). Recent emphasis on learning outcomes and transforming the curriculum to be more learning centered has often come into direct conflict with operating under tight budget constraints. Learning communities have been shown to be more costly than stand-alone classes at one of these community colleges. This study analyzed the effectiveness of learning communities versus stand-alone courses taught by the same instructor. Final grades and withdrawal rates were compared in the two types of curricular design (n=3,290). Using paired samples t-tests, no significant difference was found between learning communities and stand-alone courses in these areas. However, results from student evaluations of the instructor, based on a learning community survey (n=222), focus group interviews with learning community students, and interviews with instructors who taught both learning community and stand-alone classes revealed a very strong preference for the learning experienced in learning communities. This proved higher for second-year nontraditional students than it did for first-year traditional students. Women slightly preferred learning communities more than men did. The researcher concludes that learning communities are no panacea for all learners, yet the quality of the learning and teaching experience does suggest inclusion in the curricula at these two colleges. Appendices include final grade roster analysis, the student survey, and interview questions for instructors of paired courses. (Contains 84 references and 77 graphs.) (EMH)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 457 918

THE EFFICACY OF LEARNING COMMUNITIES AT TWO COMMUNITY COLLEGES

A Dissertation Proposal

Presented in Partial Fulfillment to the Requirements for the

Degree of Doctor of Philosophy

with a Major of Education

in the

College of Graduate Studies

University of Idaho

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

James E Minkler

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

by

James E. Minkler

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

May 5, 2000

Major Professor: Terry R. Armstrong, Ed.D.

JC010675

BEST COPY AVAILABLE

ABSTRACT

This combined causal comparative and qualitative study examined learning communities at two community colleges. Recent emphasis on learning outcomes and transforming the curriculum to be more learning centered has often come into direct conflict with operating under tight budget constraints. Learning communities have been shown to be more costly than stand-alone classes at one of these community colleges. This study analyzed the effectiveness of learning communities versus stand-alone courses taught by the same instructor. Final grades and withdrawal rates were compared in the two types of curricular design. Using paired samples t-tests no significant difference was found between learning communities and the stand-alone courses in these areas. However, results from student evaluations of the instructor, of a learning community survey, focus group interviews with learning community students, and interviews with instructors who taught both learning community and stand-alone classes revealed a very strong preference for the learning experienced in learning communities. The preference for learning communities proved higher for second year nontraditional students than it did for first year traditional students. Women slightly preferred learning communities more than men did. The researcher concludes that learning communities are no panacea for all learners yet the quality of the learning and teaching experience for students and faculty members do recommend inclusion of learning communities in the curricular offerings at these two community colleges.

THE EFFICACY OF LEARNING COMMUNITIES AT TWO COMMUNITY COLLEGES

A Dissertation Proposal

Presented in Partial Fulfillment to the Requirements for the

Degree of Doctor of Philosophy

with a Major of Education

in the

College of Graduate Studies

University of Idaho

by

James E. Minkler

May 5, 2000

Major Professor: Terry R. Armstrong, Ed.D.

ACKNOWLEDGEMENTS

The positive support received from the College of Education faculty, staff, and administration at the University of Idaho over the past five years has been more than just helpful. They have been nurturing and positively reinforcing while never lowering the bar. Most of all they represent the topic of this dissertation – a learning community. There was clearly conveyed a sense that student learning was what really mattered and we were all in that endeavor together. Graduate professors were never condescending and were always available, staff personnel were always professional and helpful, and my fellow graduate students became close friends.

I am indebted to Dr. Terry Armstrong and his persistent penchant for critical thinking and his sage advice about the politics of higher education administration. I am grateful for the "never say A.B.D." momentum instilled in me by Dr. Lowell Jackson and Dr. Gary Delka. I survived quantitative statistics and I am indebted to Dr. Dale Everson for that. In the area of qualitative research I am indebted to Dr. Grace Goc Karp for her patience and excellent advice that led to a much deeper analysis of the learning community experience.

At North Idaho College (NIC) I am forever grateful for the help but saddened by the loss of the late Karen Streeter, whose cooperation and assistance as Registrar provided me with much of the data used in this study. I am appreciative of the support received from Kathy Christie, Assistant Vice President, and Dr. Jerry Gee, Vice President of Instruction, for allowing me to conduct the research at NIC. I definitely want to thank the faculty members and the students who contributed to this study at NIC.

At Spokane Falls Community College (SFCC) I am grateful for the assistance of Geneva Bowman, Associate Dean of Student Services for Admissions and Registration, for supplying me with the necessary data used for that college. I want to thank Pam Praeger, Interim Vice President of Instruction, for supporting the research conducted on the SFCC campus. Lastly I am, of course, indebted to the numerous faculty members and students who cooperated with this study.

TABLE OF CONTENTS

AUTHORIZATION TO SUBMIT DISSERTATION..... ii

ABSTRACT iii

ACKNOWLEDGEMENTS iv

TABLE OF CONTENTS..... vi

CHAPTER ONE

I. Introduction to the Problem

Need for the Study..... 1

Purpose of the Study..... 5

Statement of the Problem..... 6

Research Questions..... 6

Delimitations..... 7

Limitations 7

Assumptions..... 8

Definition of Terms..... 8

Significance of the Study..... 11

Summary..... 11

CHAPTER TWO

II. Review of the Literature

Education and Democracy..... 12

Education and Community..... 14

Learning Communities..... 19

Research Articles..... 24

CHAPTER THREE

III. Methods

Statement of the Problem.....30

Research Questions.....30

Subjects.....31

Instruments.....41

Procedures.....44

Design of the Quantitative Portion of the Study.....45

Independent Variables.....47

Categorical Variables.....47

Dependent Variables.....47

Design of the Qualitative Portion of the Study.....48

Researcher as Instrument.....49

CHAPTER FOUR

IV. Results

Comparative Analysis of Learning Community and Stand-alone Final.....53

Roster Grades

Withdrawals.....57

Instructional Assessment System Evaluations.....64

Descriptive Statistical Analysis of Learning Community Surveys....66

Qualitative Analysis of Learning Community Interviews....90

Advantages for Students....92

Disadvantages for Students....108

Advantages for Instructors....116

Disadvantages for Instructors....125

Advantages to Institutions....130

Disadvantages to Institutions....135

CHAPTER FIVE

V. Conclusions

General Discussion of Results....137

External Contradictions....138

Internal Contradictions....142

Implications of Learning Communities....144

Final Remarks....147

APPENDICES

Appendix A: Permission for Experimentation of Human Subjects....152

Appendix B: Final Grade Roster Analysis....153

Appendix C: Withdrawals....187

Appendix D: Instruction Assessment System Sample Instrument....191

Appendix E: Student Survey – Learning Communities Sample Instrument....192

Appendix F: Interview Questions for Instructors of Paired Courses....193

Appendix G: Focus Group Interview Topic Guide.....194

LIST OF TABLES

Table 1 Linkages....33

Table 2 Instructors....39

Table 3 Paired T-Tests with no significant difference between SA and LC 53

Table 4 Paired T-Tests with SA significantly higher than LC....55

Table 5 Themes....90

Table 6 Withdrawals....187

LIST OF CHARTS

Chart 1 NIC Gender Percentages in Learning Communities and Stand-alone Classes 35

Chart 2 SFCC Gender Percentages in Learning Communities and 36

Chart 3 Learning Community Survey Age Group Percentages at NIC and SFCC 38

LIST OF GRAPHS

Graph # 1 Statistical Comparative Analysis of Final Grade Rosters.....57

Graph # 2 Stand-alone classes at NIC & SFCC.....59

Graph # 3 Learning Community classes at NIC & SFCC.....59

Graph # 4 Paired T-test Results for NIC.....60

Graph # 5 NIC Stand-alone class means curve.....61

Graph # 6 NIC Learning Community class means curve.....61

Graph # 7 Paired T-test Results for SFCC.....62

Graph # 8 SFCC Stand-alone class means curve.....63

Graph # 9 SFCC Learning Community class means curve.....63

Graphs # 10 – # 77 Final Grade Roster Analysis.....153

CHAPTER ONE
INTRODUCTION

Need for the Study

How do we learn? Is the lecture hall where the best learning takes place? The lecture hall orients the students toward viewing the instructor as the one who is on stage. This "didactic mode of instruction" is often competitive, pitting student against student for the good grades (Paul, 1988, p.214). Many have taken a position that criticizes the traditional arrangement, however (Dewey, 1916; Barr & Tagg, 1995; Meikeljohn, 1932; Paul, 1988; Whitehead, 1932).

The traditional classroom and its associated method of instruction have operated under the assumption of the objective positivist paradigm (Coulon, 1995). Advocates of this position maintain that an objective knowledge base exists that the instructor can impart to the student. The student is a passive recipient in this transference of knowledge. Such an epistemology has raised objections from a number of different philosophic camps (Berkeley, 1734 ; Gill, 1993; Kuhn, 1970; Nishida, 1923; Ortega y Gasset, 1936; Sartre, 1956; Whitehead, 1932).

In Berkeley's idealism any assumption that a separate, knowable realm of objective reality exists is erroneous. For Berkeley (1734, 1971) all that can be known about objects outside of our ideas of them is that we have a notion of them.

Existentialist philosophers such as Ortega y Gasset (1936) and Sartre (1956), criticized the scientific objectivist paradigm because it focused too much on what Sartre termed "en soi" or being in the world instead of "pour soi " or being for oneself. The

primary focus of education for existentialists must be the development of the students in their act of choosing and developing character.

Some existentialist philosophers like Sartre (1956) and Heidegger (1962) stressed the point of interaction that links to an epistemological philosophy known as phenomenology. This epistemology states that one learns at the point of interaction with another. Knowing comes about by one's consciousness of the experience of interrelation (Buber, 1952; Husserl, 1932; Merleau Ponty, 1962; Nishida, (1923). For these philosophers the obsession of the scientific objectivist approach with using objective measures for discovering the truth of an objective reality is misguided. They assert that such an objective reality, void of the subject, can never be known.

Kuhn (1970) in his The Structure of Scientific Revolutions raised the question of whether any scientific paradigm could ever be truly objective. Kuhn argued that all scientific theories have some element of social, cultural, and subjective influences.

John Dewey (1916) argued that students learn by doing. Agreeing with Thomas Jefferson, he claimed that one of education's goals was to instill a sense of democracy into the students. The best way for this to happen Dewey (1932) argued, was to foster a sense of a community of learners working collectively to solve problems. Dewey saw, as Aristotle had done, the important relationship between the use of the learner's reason with that of the learner's actual experience. Knowledge was somehow contingent on the relationship between experience and reason. Neither Dewey nor Aristotle saw the learner as isolated but rather a member of the *polis* or society. The learner's experience is dictated in part by the learner's environment. The philosopher Jerry Gill (1993) has criticized Dewey for not going far enough in recognizing the experiences of the learners as being an integral, contributing

part of the learning process. For Gill these learners learn from their experiences in not only coming into direct contact with the subject matter but by coming into direct contact with each other. This experiencing others Gill argues constitutes true learning where learners make connections between subject matter and self and between self and all others involved in the shared learning experience.

Making connections between disciplines has been the key focus in an increasing number of integrated studies programs in elementary and secondary education (McKinnon, 1997; Walker, 1996; Westley, 1991). The integrated curriculum links subjects such as math, science, and writing together as students work on projects together using these skills. The amount of literature on the integrated curriculum at this level of education is extensive (McKinnon, 1997; Walker, 1996; Westley, 1991). The concept of an integrated curriculum by itself, though, still had not necessarily captured the idea of a learning community where students interact as a community of learners, learning from their own experiences.

The introduction of the integrated curriculum in higher education has not been nearly as widespread. In the 1930's, Meiklejohn argued for colleges to dramatically change the way curriculum was structured. His book The Experimental College he introduced the idea of learning communities and integrated studies to the attention of higher education (Meiklejohn, 1932). The work of Tussman (1969) at Berkeley made the establishment of learning communities a reality. Tussman put into practice the educational philosophies of his teacher Meiklejohn along with the writings of Dewey (1916); Ortega y Gassett (1936); and Whitehead (1932). These writers called for reform in higher education to make curriculum more engaging for the learner. They believed that traditional higher education with its typically segmented curriculum resulted in students failing to see the connections in

their learning. They believed that a more integrated, interdisciplinary approach to learning was necessary. Their arguments, however, were based on theoretical concepts without any research to test their hypotheses.

Since the mid-1980's a number of institutions of higher education have incorporated learning communities into their curriculums. Tinto (1995) and his associates have found that the formation of such learning communities helps institutions retain college freshmen. Their studies also indicate a high degree of satisfaction for students and faculty that have participated in the learning communities.

The combination of an integrated curriculum and a community of learners experiencing learning together was fully brought into reality at Evergreen State College in the 1970's. The Washington Center grew out of the Evergreen State College learning community experience as a consortium of higher education institutions in Washington State. It has been a leader in developing learning communities throughout the country since the mid 1980's. Despite the Center's efforts many major colleges still do not have any form of learning community curriculum such as linked courses (MacGregor 1994).

The term "linked course" refers to a course in which students enrolled in one course are automatically enrolled in another course from a different discipline (Gabelnick, F, J. MacGregor, R. Matthews, & B. Smith, 1990). At some institutions, courses may be linked with two or more other courses. This scheduling technique allows for the formation of a learning community where students find themselves together for more than one class. To incorporate each other's content and lesson plans to a certain degree, the linked classes often have a shared theme, develop similar skills, or one of the classes provides the skill base for the other class (Gabelnick, MacGregor, Matthews, & Smith, 1990).

Various types of learning communities exist such as freshmen interest groups (FIGS), integrated studies programs, federated learning communities, clusters, triads, and coordinated studies as well as linked classes (Gabelnick, MacGregor, Matthews, & Smith, 1990). Ideally linked (sometimes referred to as paired) classes require that faculty jointly develop their syllabi, share and collaborate their lesson plans and assignments, and plan complementary activities that reinforce the interdisciplinary links that exist.

Before colleges buy into the idea of developing the learning community pedagogy there are some drawbacks that require consideration. Learning community classes are much more problematic to schedule. They often fail to fill as fast as conventional stand-alone classes because students are often unaware of what is meant by a learning community (Tinto, 1993). Because a great deal of collaboration must take place between participating faculty, they require more time for faculty members who teach the linked classes. Enrollments in linked classes are typically less than in conventional unlinked classes (Tinto, 1994). Instructors teaching learning community classes many times require reassigned time to develop the integration. This requires the institution to hire another instructor to teach the class from which the learning community instructor has been released. The incorporation of learning community classes into the curriculum can be costly in both time and money (McLaughlin, 1996).

Purpose of the Study

For administrators and faculty desiring data on learning communities in higher education a paucity of data exists. Most of the data that is available is anecdotal with little quantitative data available (Tinto, Goodsell Love, & Russo, 1994). With so many institutions currently interested in developing curriculum that embraces some kind of

need. As an administrator making decisions about learning communities, the researcher was in the position of requiring more data for more informed decision-making.

Statement of the Problem

Whether curriculum designed and delivered with the concept of learning communities in mind is significantly superior to stand-alone courses is an important question that needs to be addressed. With an increased emphasis on learning outcomes, especially at community colleges, new curricular initiatives are being scrutinized for their effectiveness. The literature indicates that learning communities may significantly contribute to learning but some institutions have found learning communities to be more expensive to deliver than traditional stand-alone courses. Colleges that have learning community offerings do so on the premise that such offerings will benefit student learning and lower student attrition. The support for the learning communities argument is based largely on the acceptance of this premise, yet more research is needed to demonstrate whether or not the premise is acceptable.

Research Questions

1. Is there a significant difference in student grades between stand-alone classes and learning community classes that are taught by the same instructor?
2. Is there a significant difference in withdrawal rates between stand-alone classes and learning community classes that are taught by the same instructor?
3. Do gender, year in college, and age have any affect on student experiences in learning communities?

4. What are the experiences of faculty who teach both learning community and stand-alone classes of the same course?
5. What are the learning community experiences of a focus group of students who have taken both learning community and stand-alone classes?
6. Are there any similarities and discrepancies in the interviews of the faculty and focus groups of students that might help explain findings in the quantitative data?

Delimitations

1. The review of the literature, except for Aristotle, was limited from 1900 to the present.
2. College courses researched were limited to those academic courses that were taught by an instructor who taught both stand-alone and learning community classes of that course.
3. Interviews were limited to those instructors at two community colleges who taught both learning community and stand-alone classes.
4. In most cases interviewer was the supervisor to the instructors being interviewed.
5. The class grade rosters used in the study were limited to the fall semester of 1994 through the spring semester or quarter of 1999.
6. The students who completed surveys were limited to only those students who were enrolled in linked classes in the spring semesters of 1998 and 1999 (NIC) and fall quarter of 1999 (SFCC).
7. The study was limited to two community colleges in the Pacific Northwest.

Limitations

1. The ability to generalize the findings may be limited to the geographic area of the inland Pacific Northwest.

2. The ability to generalize that the answers on the learning community student questionnaire are always the same as they were in 1998 and 1999.

Assumptions

1. Learning community students answered the questionnaire honestly and accurately.
2. Faculty responded to interview questions honestly and accurately.
3. Students in the focus group interviews answered the questions honestly and accurately.
4. All participants had the necessary reading comprehension to understand the questions being asked.

Definition of Terms

access to instructors: Students experience easy and frequent access to their instructors.

accountability: Students are responsible to peers for assignments and projects. Instructors are responsible to colleagues to be organized.

administrative support: Instructors are provided the necessary resources and encouragement from the administration.

collaborative learning: A pedagogy designed to help guide adolescent and adult learning where peers become interdependent for learning and take responsibility for learning upon the group.

content coverage: Students learn the required amount of content to meet the learning outcomes of the course.

cooperative learning: Similar to collaborative learning, students learn to value others as resources, and in turn learn to share themselves are resources for others.

coordinated study triads: Three courses that students sign up for collectively that share a central theme and are team taught by three instructors. When students sign up for one course, they sign up for all three.

difficult scheduling: Problems with scheduling linked classes for times, classrooms, and student schedules.

enjoyment: Learning and/or teaching are experienced as fun.

federated learning communities: Those courses that students sign up for collectively that share a central theme. When students sign up for one course, they sign up for the other courses as well that share that same theme.

flexibility: Instructors are able to modify their lessons, syllabi, and classroom rules to accommodate the learning community.

general education: In the context of this study, it means the core of courses to meet the undergraduate degree requirements of an institution of higher education.

group work: Collaborative learning often done in groups of three to five students prevalent in learning communities.

instructor qualities: Characteristics of the instructors in both stand-alone and learning community courses

instructor time commitment: The amount of time instructors devote to preparing and teaching in stand-alone and learning community classes.

interdisciplinary connections: Students are able to understand the relationships between various subjects.

learning communities: A structured curriculum "so that students are actively engaged in a sustained academic relationship with other students and faculty over a longer period of their time than is possible in traditional courses" (Smith & Hunter, 1988, p. 27).

learning results: Any effect of any curricular design that enhances learning outcomes.

linked classes: Those classes in which students are enrolled together for more than one course, where the themes or skills of one course are addressed and interwoven with the content or skills taught in the other course(s).

paired classes: Similar to linked courses, but involving even more team teaching and shared assignments.

peer interaction: Student to student dialogue and teacher to teacher dialogue.

personality fit: Instructors in team teaching partnerships must have personalities that compliment each other.

professional development: Teaching opportunities that allow for rejuvenation, increased knowledge about content and pedagogy.

retention of students: Retaining students so they do not drop out of a class or college.

sense of community: An educational experience indicative of an environment characterized by sharing, caring, trusting, working together, and the making of friends.

student workload: The amount of student work in learning communities compared to stand-alone classes.

team teaching: Instructors teach at least two classes together. They may or may not attend each other's class but there is a great deal of collaboration between them.

withdrawal: The student or instructors fills out a form which officially withdraws the student from the class before the last day to withdraw in the semester or quarter. Filling out the form

allows the student to receive a W for the course that does not affect the grade point average of that student.

Significance of the Study

Although research by Tinto & Goodsell Love (1995); Tinto, Goodsell Love, & Russo, (1994) and Tollefson (1990) has provided important data on the subject, a paucity of data still exists. Faculty and administrators who are pondering the inclusion of learning communities in the curriculum need to know as much as possible in order to make informed decisions (McLaughlin,1996). There is a need for more data before administrators and faculty are able to claim that learning communities do improve the quality of learning, however, if much of the literature on learning communities is correct, students and faculty stand to gain a great deal from participating in them.

Summary

Chapter One has introduced the reader to the basic concept of the issue of learning communities. It has explained how such a pedagogical technique is used in higher education for the desired purposes of enhancing the learning experience. The need for the study addressed the fact that there was little actual data available. The statement of the problem indicated that there still fails to be convincing research that shows learning communities to be significantly better than stand-alone classes in enhancing learning outcomes. The question remains whether there is a significant difference between learning communities and stand-alone classes in affecting student grades, student retention, and student and instructor learning experiences. The question of whether gender, age, or year in college also have an influence on how one experiences learning communities will also be examined.

CHAPTER TWO

REVIEW OF THE LITERATURE

Education and Democracy

Learning communities are a fairly recent addition to the college curriculum. The 1990's were a time when many colleges incorporated learning communities into their curriculums (McLaughlin, 1996). There are a number of reasons why this initiative has taken place. The belief that education should be a democratic process is certainly one of those reasons. The notion of a democratic education can be traced back to the ancient Greeks. One premise often assumed when one considers democracy is the thought that the members of a society participate in the political discussion. In education this entails considering the thoughts and experiences of the learners.

In his Nicomachean Ethics Aristotle maintained that knowledge could neither be said to be all logos (reason) nor could it be said to be entirely praxis (experience). It was the combination of these two for Aristotle that allowed the learner to acquire knowledge. The learner's experiences were thus a vital part of learning. Neither Aristotle nor his two great predecessors, Plato and Socrates, saw learning as a solitary function of the individual. As wise as a Socrates may have been, the experiences of Socrates' students were taken into account and the students were involved in the Socratic quest for knowledge.

Aristotle emphasized the importance of participating in the polis, or the citizenry of the state. This sense of working with others toward a common good has played itself out through a number of variant ways in the political philosophies that have followed in over the two millennia since that time.

John Dewey (1916) agreed with Aristotle that one of the essential roles of education was to teach an individual to participate effectively as a citizen of democracy. Like Aristotle, Dewey agreed that education was much more than reason or learning about theories. Dewey stressed the importance of experience and application. Like the ancient Greek philosophers of the Socratic tradition, Dewey saw the interaction between teacher and pupil, between pupil and pupil, as critical in the development of the learner. The interaction between the learner and the environment plays a profound role for Dewey (1938) as we can see in the following:

> The conceptions of situation and of interaction are inseparable from each other. An experience always is what it is because of a transaction taking place between an individual and what, at that time, constitutes his environment, whether....persons with whom he is talking...the subject talked about...the toys with which he is playing, the books he is reading, or ....an experiment he is performing. The environment, in other words, is whatever conditions interact with personal needs, desires, purposes, and capacities to create the experience which is had. (p. 13)

The idea of redesigning the curriculum of the university to enhance the ability to better function as a citizen in democracy goes back to the 1920's when Alexander Meiklejohn hinted at such an idea when he wrote his book, The Liberal College. Later in 1932 he more vividly explained his notion of learning communities in his The Experimental College. Meiklejohn's work was quite consistent with the educational philosophy of John Dewey. The concept Dewey made famous was "learning by doing" and that education needs to be viewed "as a social enterprise in which all individuals have an opportunity to contribute and to which all feel a responsibility" (Dewey, 1938, p. 116). Meiklejohn (1932) expanded

on the concept by stressing the importance of the "continuity of context rather than through the unity of content" (p. 47). Tussman (1969), who in his youth was a student of Meiklejohn's, in 1969 pioneered the ideas of his former mentor when he implemented the idea of learning communities at the University of California at Berkeley. His work, which he chronicled in Experiment at Berkeley, was to fuel the flames to a great deal of curricular reform in the 1970's, such as Washington state's Evergreen State College that has become the leader through its Washington Center for learning community scholarship and faculty training.

The reemergence of Dewey's educational philosophy of progressivism in the 1980's and 1990's, especially with the advent of neopragmatism among the theorists and the collaborative and cooperative learning movements, provided the pedagogical climate for learning communities to take hold at many colleges. The traditional theories of realist and perennialist approaches to teaching through lecture had come into question with more learning centered instruction (Barr & Tagg, 1995; Paul, 1993; Whitehead, 1929). As many educators such as Astin (1995) began to note, for students to value the democratic process and to develop the skills of social responsibility, they must not be immersed in the traditional higher education model of teacher-centered classrooms. The teacher-centered classroom is where students learn in isolation from one another rather than be allowed to collaborate with each other in a shared learning process (Astin, 1995;Barr & Tagg, 1995; Paul 1993).

Education and Community

The idea of learning in groups and in the context of experiencing what is supposed to be learned in a hands-on way is embedded in a phenomenological epistemology. This epistemology rejects the scientific objectivist claim that truths are absolute objective facts

that can be learned by the subject. Knowledge to the objectivist is that which can be acquired by analysis and manipulation of the data (Coulon, 1995). That which is studied under this scientific objectivist paradigm is objectified and analyzed into its constituent parts. This is done, it is argued, to yield us a more thorough understanding. Phenomenologists reject this position. For the phenomenologist objects do not exist in isolation to the learner. With the phenomenological paradigm knowledge is based on the experience of interaction. For Husserl (1931) all we can be said to know is what we know of our experiences through these interactions. Nishida (1923) and Merleau-Ponty (1962) also explain that it makes no sense to talk about the subjective or objective realities of our experiences. Our very essence is based on experience as we come into interaction with others. These others can be other learners, or as we see in the philosophy of Buber (1952), can be a tree or a rock. Our way of knowing is thus inevitably shaped by our interactions with others in our environment. Integrated studies programs, linked and paired classes, and other forms of learning communities draw heavily from this epistemological paradigm of phenomenology.

Once we realize that we impact and are impacted by those with whom we interact, the objectification of the other epistemology seems very removed and distant from that which is being studied. This distance has been characterized as the cold hand of science. It is the unemotional logic of Star Trek's Spock, devoid of feeling. For Buber and other phenomenologists much of what we know is feeling and is an integral part of our experience.

The phenomenological paradigm allows the objectivist's rigid standard of distancing oneself from what one studies to be dropped and replaced by an ethics of care. Gilligan (1982) has argued that the ethical logic of theorists such as Kohlberg or philosophers of ethics such as Immanuel Kant present a view that is devoid of feeling. For Gilligan the

relationships that exist between others form a great deal of our ethical reasoning. Ethical theories cannot, she argues, be taken out of this context. Learning communities build on the relationships that Gilligan contends are a basis for the way that many women justify their moral decision-making.

Jerry Gill (1993), who taught philosophy at four year colleges and community colleges for over thirty years, has found a great deal of the phenomenological philosophies of Merleau-Ponty (1962) and Michael Polanyi (1962) to have important applications in higher education. Gill contends that how teaching often occurs in higher education causes students to be "systematically excluded from interacting with the subject matter, each other, and the professor" (p. 71). Like Dewey and Aristotle, Gill argues that the experiences of the learners must not be ignored...that they must somehow be brought into the interaction of what is being taught. This interaction is crucial and the placing of the professor in a hierachical position where students are denied "any serious mutuality and significant exchange with the students" is not one where this interaction is encouraged. The sage on the stage notion is still predominant in many college lecture halls today, Gill contends, where too often the instruction is delivered by "the expert handing down esoteric and privileged data to the lowly initiates" (. 71). Gill argues that much of human learning takes place in an ongoing interaction between people as they engage in linguistic communication. To deny the student a voice in the learning process is to deny this learning to take place. The problem with Dewey, Gill contends, is that he failed to take into account the affective part of the student's environment, especially in considering the interaction between persons involved in the learning environment. The associations that a learner has to fellow students, to the teacher, to the classroom, and to the subject matter all enter into the experience of the

learner. In this way, Gill argues, Dewey has ignored the place that feelings and attitudes play in cognitive activity (p. 169). In this regard Gill echoes Gilligan's (1982) and Noddings'(1984) arguments that the learner does not exist in a social vacuum. The main point that Gilligan and Noddings make is that people (especially women) do care about one another and that meaningful decisions are made in the context of those interrelationships. The competitive pitting of student against student in a quest of independent learners for a select percentage placement on a bell curve is quite antithetical to the learning process. Unfortunately, Gill notes, professors often treat students in this "impersonal and dehumanizing fashion" (p. 95). Gill argues that it is only when professors abandon the mistaken concept about maintaining professional distance that the debilitating effects of higher education can be avoided and the business of real learning can take place. Gill prefers that learning be viewed as best achieved by a group of learners sharing what he likens to an interactive dance. Such a concept has been viewed as heresy in Western traditional education but Gill argues that such a tradition needs to break with the misconceptions of the past. Gill concludes that the aim of education should be "to create an atmosphere which causes students to look forward to the class, to feel respected and needed in the pursuit of knowledge, and to respect and rely upon each other in these endeavors" (p. 148). Gill's idea of a community of learners is reflected in the following:

> Rather than thinking of the knower as an independent entity involved in loose association with other knowers within the framework of the physical world, it would seem preferable to think of knowers and the world together, as warp and weft, comprising the common fabric of reality as we encounter and know it. Thus, not only are individuals symbiotically related to one another in a constitutive fashion, as

> opposed to an arbitrary one, but their mutual interaction within the parameters supplied by the natural environment actually yields what we come to call "the world." (p. 94)

Parker Palmer (1987) would concur with this new paradigm in how we view each other and how we learn. He asserts that to build a sense of civic virtue we must abandon the old paradigm by rethinking the ways we teach and engage students. Gabelnick (1997) puts the importance of collaborative learning this way, "The challenge of educating a committed citizenry is to change the societal and university paradigm from a strategy of competitiveness to one of collaboration, from a perspective of scarcity to one of sufficiency and inclusion, and from a stance that looks for expedient solutions to one that engages and commits to a series of values and a way of life" (p. 54).

What many educators have argued is that learning in both childhood and adulthood is best fostered in a rich social context of interaction. They argue that the idea of isolation in rows of desks and passive note-taking have not been conducive to that learning. Jean MacGregor, former Associate Director of the Washington Center, Director of a Fund for Improvement of Post-Secondary Education and for a three-year national learning communities dissemination project, has espoused this epistemological theory in a number of articles she has authored or co-authored. MacGregor (1990) argues that knowledge is socially constructed by communities of individuals rather than individually constructed. She writes, "Knowledge is shaped, over time, by successive conversations, and by ever-changing social and political environments (p. 23). For real learning to take place, MacGregor would agree with Dewey, we must link the aspects of learning to "doing, constructing, and creating" (p.24).

If Dewey, Gabelnick, Gill and MacGregor are right that students need to learn how to collaborate and be socially responsible if they are to be successful in the world, then one would infer from this that these traits will somehow benefit one in the twenty-first century. Futurists like Jeremy Rifkin and Peter Senge definitely support this view. For Rifkin (1998), the twenty-first century will be marked with the decline of manufacturing jobs and the rise of what he calls community capital, the third sector of the economy that will provide the greatest amount of opportunity. To succeed in this third sector, however, the very skills that are learned through collaboration and cooperation will be crucial and the specialized skills for industry and the technical professions that community colleges are focusing on will no longer be the greatest priority in education. Peter Senge (1990) also indicates that the most successful organizations will be those that are comprised of individuals that reflect cooperation and collaboration.

The question that often gets asked in the discussion of collaborative versus more didactic methods of teaching is whether a discipline's content is sacrificed when small group work replaces, at least in part, a strict lecture format (Bruffee, 1995; Paul, 1993).

Learning Communities

Collaborative learning has made possible the learning methodology that has brought about the formation of learning communities.. Learning communities are a natural product of collaborative learning as they serve as "the delivery system and a facilitating structure for the practice of collaborative learning" (MacGregor and Smith, 1993, p. 8). The actual scheduling of learning communities into the curriculum allows for more time and space for collaborative learning to take place.

The literature on learning communities is fairly consistent on how the concept is defined. Most writers on learning communities would concur with this concise definition by Smith, former Director of the Washington Center, and Hunter (1988), "A 'learning community' is a deliberate restructuring of the curriculum to build a community of learners among students and faculty. Learning communities generally structure the curriculum so that students are actively engaged in a sustained academic relationship with other students and faculty over a longer period of their time than is possible in traditional courses" (p. 52). These learning communities "intentionally restructure the course unit" by developing various kinds of interdisciplinary connections or linkages that engage faculty and students in "reconceptualizing social, economic, political, and multicultural issues" (Gabelnick, 1997, p. 40). Because of this increased amount of time between students and faculty members, faculty are much more aware of each student's learning style and needs, and students are much more aware of each other and how their fellow peers learn. According to Smith and Hunter, the learning community approach is "an explicit attempt to alter structure in a way that supports effective learning and creates an enhanced sense of academic community between students and faculty" (1988, p. 39).

Why is there a need to restructure, or at least to rethink the way courses are scheduled into the curriculum? Most of the authors on the subject of learning communities agree on at least several of the needs for including learning communities in the course offerings, and some institutions, such as Evergreen State College, have designed their whole college curriculum around this concept. The advocates of learning communities claim the traditional delivery of higher education is flawed. They claim that the traditional delivery results in a number of problems ranging from high student attrition to very disjointed, departmentalized

modes of learning which fail to establish any connectedness from discipline to discipline. Boyer (1987) reflects the traditional tendency toward departmentalization in the following:

> Colleges exacerbate this tendency toward self-preoccupation and social isolation. We found during our study that general education is the neglected stepchild of the undergraduate experience. Colleges offer a smorgasbord of courses, and students pick and choose their way to graduation. Too many campuses, we found, are divided by narrow departmental interests that become obstacles to learning in the richer sense. Students and faculty, like passengers on an airplane, are members of a community of convenience. They are caught up in a journey with a procedural rather than a substantive agenda. (p. 83 – 84).

Palmer (1999), well known for his writing on the phenomenon of learning and teaching, concurs with Boyer as he faults the traditional university view of educational delivery because it results in disconnection. This "disconnection is regarded as a virtue rather than a pathology" (speech at Washington Center Conference on Learning Communities). Parker argues that the traditional approach is pathological in two ways, intellectual and sociological.

From the intellectual standpoint, Parker (1999, speech) blames the obsession of higher education academia with objectivism. Such a preoccupation with objectivism leads to factoring out emotion and subject, and thus any sense of relationship disappears, Parker claims. Such an educational paradigm is not only "morally deforming, but is not true."

From the sociological standpoint Parker suggests that the professorate is comfortable because being disconnected means being unaccountable. The difficulty here is that the

comfort results in pathology, and pathology leads to suffering, in this case both students and faculty are the ones who do the suffering. Faculty may feel isolated and out of touch with their fellow colleagues. Learning communities are a "structural response to this fragmentation" (Gabelnick, MacGregor, Matthews, & Smith, 1990, p.34). The learning communities are an alternative to the atomization of discipline specific instruction. The hoped for benefits of instituting the new approach is a greater sense of coherence, community, and a sense of purpose (Gabelnick, MacGregor, Matthews, & Smith, 1990). Although no author believes that learning communities are a cure-all solution they do believe that a number of benefits will result that will improve the climate of the institution for students and faculty alike.

Patrick Hill (1985), former Academic Vice President at Evergreen State College, has identified seven problems found in higher education for which he contends learning communities are a reasonable solution to what he calls a whole cluster of fundamental ills besetting higher education today. The first of the ills Hill identifies is the mismatch of a "research-oriented, discipline-focused faculty with a career oriented student body lacking an academic heritage." The next fundamental ill is the scarcity of time allotted for intellectual interaction between faculty and students, and between students and students. The lack of relationship between courses taken by the student outside of his or her major is the third ailment. Fourth is the lack of resources and opportunities for faculty development, resulting many times in low morale among faculty members. The fifth problem is one of the complexity. These are very complex problems with which our society is continually faced. Such problems demand a very synthesized, interdisciplinary approach. Hill contends that the very specialized disciplines and the artificial barriers we erect between these fields of

knowledge in our academic institutions make finding solutions for these types of complex problems exceedingly difficult. On this point he reiterates the arguments of Jose Ortega y Gasset (1936) over sixty years ago. The sixth problem recognized by proponents of learning communities is unprecedented attrition rates of students at institutions of higher education.

The seventh concern for Hill (1985) is a financial one dealing with what he sees as a continued scarcity of financial resources. He asserts that because learning communities address so many of the destructive and non-productive trends in higher education they will actually serve to combat these ills on a number of fronts. This will allow institutions to make headway toward improving quality education even in the face of shrinking budgets. Hill makes many of the same points made by Palmer (1983) who argued for the need for spirituality and community in the academic workplace. Hill argues that the opportunities offered by learning communities yield "a tremendous gush of creativity" that will come forth and people will start to learn again, and "to feel excited about their work" (p.69).

Hill is not alone in his optimism of what learning communities will be able to do for higher academia. In the most extensive written work focusing on learning communities yet to date, Gabelnick, MacGregor, Matthews, and Smith (1990) have made quite a case for learning communities, stating, "Learning communities are always more than the sum of their constituent parts. They are memorable partly because they are synergistic, coherent educational experiences. Learning communities often have a dynamic quality that arises naturally as a result of putting several teachers together to build a new curriculum" (p.17). They assert that such a powerful intellectual synergy will make profound differences in the teaching and learning process. The connections that students are able to make in learning communities often elude them in traditional courses, and there are numerous examples of

this at a variety of institutions. Examples of this would be students learning how to write competently in chemistry or biology, or learning that systems of logic have connections to music and philosophy (Gabelnick, MacGregor, Matthews, & Smith, (1990).

The main objection to the notion of learning communities does seem to be the cost. Some authors recognize this as a reasonable objection but disagree that it is a sufficient reason for not implementing them. Initially they concede there may be some costs, yet the results will eventually allow success to feed upon success, drawing students and sustaining them rather than seeing them either fail to come at all or drop out either during or immediately following their freshman year (; MacLaughlin, 1996; Smith & Hunter, 1985; Tinto, 1990).

Research Articles

Although there is a great deal of advocacy for learning communities among the authors on this subject, there are relatively few instances where quantitative data is given to support the claims made. A notable exception to this is the research conducted by Vincent Tinto, Anne Goodsell-Love and Pat Russo (1993). This comparative and longitudinal study focused on the academic and social experiences of beginning college students. The three institutions this study focused upon were the University of Washington, Seattle Central Community College, and LaGuardia Community College in New York City. The results of this study suggested that learning communities do result in higher academic achievement for the students in linked courses as opposed to those students enrolled in traditional courses where no learning community was present. Also of significance was that the attrition rate in the linked courses was much lower than that of the traditional courses. This was true of both students who had voluntarily chosen to be enrolled in linked courses as well as students

who were in the linked courses as a last resort since the traditional courses were closed at their time of enrollment. The research was conducted through both quantitative and qualitative means. The results of surveys and interviews suggested that students in linked classes or coordinated studies programs "reported greater involvement in a range of academic and social activities and greater developmental gains over the course of the year than did students learning in the regular curriculum" (p. 27). Interviews and surveys also suggested that the students' comfort level for interaction had been enhanced by a "high level of social, emotional, and academic peer support that emerged from classroom activities"(p. 27). For Tinto (1994) the most important result of the research was the very significant comparative difference between traditional and the coordinated studies program during the spring quarter at Seattle Central Community College. There the persistence rate into the following fall quarter was "fifteen percent greater than it was for similar students enrolled in regular classes (66.7 and 52 percent respectively)" (p.45). Tinto reported being surprised to find this much difference during just a one-quarter program. Another important finding, Tinto notes, is that linked classes or coordinated studies programs at Seattle Central Community College appear to work well for community college students with substantial remedial needs. This leads us to argue, Tinto concludes, that we should design the kinds of educational settings that will involve all the students, not just some.

Perin (1999) reports similar findings at Rho Community College (RCC) "students who tend to avoid general education, often because of past difficulties, improved when skills were taught in a relevant context" (p. 32). The relevant context that Perin referred to was achieved by linked course offerings at RCC. Perin noted that "Linked courses produced a better sense of community among students" (p.32).

The most comprehensive research conducted on learning communities was the three-year study known as the National Learning Communities Dissemination Project involving twenty-one institutions at thirty different campuses (MacGregor, 1999). Among nineteen that published the results of their study were the following seven community colleges: Collin County Community College, De Anza College, Delta College, Holyoke Community, Maricopa Community Colleges, Metropolitan Community Colleges, and William Rainey Harper College. The project was directed by the Washington Center and funding support came from the U.S. Department of Education's Fund for the Improvement of Post-Secondary Education (FIPSE). The goals of the project were threefold:

"(1) to support the participating campuses as they more fully established, assessed and evaluated their learning community programs; (2) to disseminate information about the learning community initiatives on these campuses to a national audience; and (3) to feature the experience and knowledge gained by these institutions at a national learning communities conference in the final year of the project (1999)" (MacGregor, 1999, p. ii).

Nineteen institutions of the National Learning Communities Dissemination Project each conducted their own research at their respective campuses. The majority of them used both quantitative and qualitative research techniques. MacGregor (1999) made these observations of the research efforts of the institutions involved:

> "From the beginning, many of these schools accepted our invitation to bring someone interested in assessment onto their planning teams. They also sought to use traditional quantitative measures, such as student retention and academic achievement, and some not so traditional qualitative measures as well. These include student satisfaction and a sense of 'connectedness,' to provide guidance as the

learning community developed. Schools that took the initiative to solicit and monitor student opinions found that these kinds of qualitative data were immensely useful in developing their learning communities. Essentially, they learned the importance of listening to the students at every step of the way." (p. 201)

One community college in the National Learning Communities Dissemination Project, Delta College in mid-Michigan, reported that students in learning communities, whether in linked, paired, or coordinated studies programs, failed to show any higher grades than in stand-alone courses. Learning community students also had a slightly higher tendency to drop or withdraw from a course. Of the nineteen institutions involved in the study Delta College was the only one to show such negative results for learning communities. In contradistinction to these findings however, students at Delta College reported overwhelming satisfaction when results of a subjective survey were analyzed (Fogarty, et al., 1999).

With the exception of Delta College, the common theme that ran throughout the results of the National Learning Communities Dissemination Project was that participation in learning communities resulted in the same or higher grades for cohort students than those in respective stand-alone course comparison groups. Learning community students also had significantly higher rates of retention than their respective stand-alone counterparts (Cambra, et al., 1999), (Day, Johnson, LaRue, & McGreevy), 1999), (Della-Piana, et al., 1999), (Donath, 1999), (Dutcher, Mino, & Singh, 1999), (Gordon, et al., 1999), (Jackson-Evans, Van Middlesworth, 1999), (Martinez, 1999), (Masterson, Schumm, McIntire, & Newman, 1999), (Mott, et al., 1999), (O'Connor, Gerttemann, & Oates, 1999), (Oitzinger, et al., 1999),

(Richard, Sandell, Bernard, & Hogan, 1999), (Rings, Shovers, Skinner, & Siefer, 1999), (Sarkela, Schwob, & Thompson, 1999), (Spencer, et al., 1999).

The common themes from the qualitative data from the National Learning Communities Dissemination Project were similar to what was found at Maricopa Community Colleges. Students participating in learning communities expressed the opinion that their experience had been very enjoyable. They "appreciated the open, comfortable, participatory, and supportive environment that was created in their LC" (Rings, Shovers, Skinner, & Siefer, 1999, p. 45). Surveys conducted with faculty involved in learning communities also revealed very positive results. Clarion University of Pennsylvania is a good example of what other institutions also noted in their studies related to the project. The results of their 1997-1998 survey showed that 98% of the faculty teaching in learning communities found it richly rewarding. The several themes that emerged were that faculty found the experience helped them in teaching their stand-alone courses as well. The faculty members improved their abilities to conduct more discussion, collaborative learning, service learning projects, and other innovations to learning. The faculty members reported that they got to know their students better as well as their fellow colleagues with whom they team-taught. They believed that the learning communities did help students make connections across the disciplines they likely would not have made without the learning community experience (Day, Johnson, LaRue, & McGreevy, 1999).

All of the institutions involved in the National Learning Communities Dissemination Project reported that the qualitative data demonstrated that students valued the sense of community experienced in the learning communities. The participating students also reported that the learning experience was inherently better than what they had experienced in

stand-alone courses. Added with increased student retention rates and grade point averages, excepting Delta College, there was general agreement that learning communities were worth the effort. Jackson-Evans and Van Middlesworth (1999) of Metropolitan Community Colleges of Kansas City assert that it is through learning communities that the goal of producing an educated citizenry can be reached. Dewey's view of achieving democracy through education is evident in these words from the Metropolitan Community Colleges of Kansas City report:

> The learning community concept struck the chord. The cord was a shared passion in the belief that education fosters individual and social reformation and that content and human interaction with content and with each other were essential ingredients in producing and educated citizen. The undercurrent found a channel to share concerns, exchange ideas, and forge a new experience for student and teacher alike (p. 57).

Researchers and learning community advocates alike have grappled with the difficulty of assessing learning communities. Grades, withdrawal and student retention rates do not sufficiently, believe some researchers, assess the type of learning occurring in learning communities. At Indiana State University (ISU) a thirty-six item, pre-test/post-test pilot instrument has been developed to measure specific learning outcomes such as interdisciplinary learning, cooperative learning, and knowledge constructivism (Chesebro, Green, & Mino, 1999). Successful new instruments like the one at ISU may provide more specific data that will tell a story about learning in learning communities that has appeared elusive to some researchers.

CHAPTER THREE

METHODS

Statement of the Problem

Whether curriculum designed and delivered with the concept of learning communities in mind is significantly superior to stand-alone courses is an important question that needs to be addressed. With an increased emphasis on learning outcomes, especially at community colleges, new curricular initiatives are being scrutinized for their effectiveness. The literature indicates that learning communities may significantly contribute to learning but some institutions have found learning communities to be more expensive to deliver than traditional stand-alone courses. Colleges that have learning community offerings do so on the premise that such offerings will benefit student learning and lower student attrition. The support for the learning communities argument is based largely on the acceptance of this premise, yet more research is needed to demonstrate whether or not the premise is acceptable.

Research Questions

1. Is there a significant difference in student grades between stand-alone classes and learning community classes that are taught by the same instructor?
2. Is there a significant difference in withdrawal rates between stand-alone classes and learning community classes that are taught by the same instructor?
3. Do gender, year in college, and age have any affect on student experiences in learning communities?

4. What are the experiences of faculty who teach learning community and stand-alone classes of the same course?
5. What are the learning community experiences of a focus group of students who have taken both learning community and stand-alone classes?
6. Are there any similarities and discrepancies in the interviews of the faculty and focus groups of students that might help explain findings in the quantitative data?

Subjects

Students from North Idaho College (NIC) and Spokane Falls Community College (SFCC) were the subjects of this research. Both are comprehensive community colleges in the inland Pacific Northwest. The selection of NIC subjects involved all students from a period of five years ranging from the fall of 1994 to the spring of 1999. The selection of SFCC subjects involved students from the fall of 1997 to the winter quarter of 2000. Since there are fewer learning community classes offered at NIC, a longer time period was needed to gather enough data for the study. The subjects were enrolled in classes that were taught by an instructor who taught both stand-alone and learning community classes of the same course. These students ranged in age and in the number of credits that they had, and NIC students were engaged in a semester system while SFCC students were involved in the quarter system. Most of the students were either freshmen or sophomore status but some students identified themselves as non-matriculated. These students also ranged considerably in their former academic records from highly successful to being academically at risk. Gender slightly favored female (59% at NIC and 57% at SFCC). Age ranged widely from eighteen to seventy-two years of age with the average mean at approximately twenty-six

years of age. Social economic status differed widely, especially considering that some students were from middle class families and currently lived with their parents and some students were full-time students, had one or two children, may have been single parents, and held a minimum wage job. Caucasian was the predominant race (93.6% at NIC and 87% at SFCC).

The students involved in this study came from both rural and urban areas. Students at NIC predominantly came from rural areas or towns of less than 40,000 people. Students at SFCC came from predominantly a metropolitan area with a population of 300,000. The average class size for learning community classes at NIC (1999 student headcount of 3,943) was around twenty students. At SFCC (1999 student headcount of 5,376) the number was higher with classes capped around forty-five students. The average stand-alone class size for these same courses at NIC was around twenty-five students. SFCC had slightly higher stand-alone enrollments ranging from twenty-eight for composition courses to sixty for some social science lecture courses. SFCC had three kinds of learning communities, linked, paired and coordinated studies, whereas NIC had linked and paired classes although the distinction was not made between the two at that campus. The distinction between linked and paired denotes the extent to which the classes had been altered and was more specific in terminology than was generally used by other institutions. Linked courses at SFCC refer to courses (generally two) that are taken in a block schedule for a group of students but the courses have not been significantly changed to incorporate the assignments and content of the other course. Paired classes at SFCC (two or more courses with two instructors) have been significantly altered to incorporate joint assignments and shared content. The paired classes instructors spent considerable time team teaching and planning. Coordinated studies

courses were generally the same as paired courses but involved at least three instructors with three or more courses linked. See Table 1 for the linkages involved in this study.

Table 1 Linkages

INSTITUTION	LINKAGE	STUDENT COUNT
NIC	Comm. 233 Interpersonal Communication with Soc. 220 Marriage & the Family	89
NIC	English 101 Composition with Psyc. 101 Introduction to Psychology	117
NIC	English 102 Composition with Psyc. 205 Developmental Psychology	88
NIC	English 101 Composition with Hist. 111 Survey of U.S. History	67
NIC	English 278 Amer. Literature with Hist. 111 Survey of U.S. History	25
SFCC	General Studies 106 College Success with English 151 Reading	26
SFCC	Art 112 Nonwestern Art with English 101 Composition	28
SFCC	Speech 220 Intercultural Communication to Humanities 223 International Cinema to Comp.	52
SFCC	Early Childhood Education 101 Issues & Trends with General Studies 106 College Success	41
SFCC	Psychology 101 with English 131 Literature with English 101 or 201 Composition	106
SFCC	English 278 Women Writers with English 101 or English 201	28
SFCC	Psychology 101 Introduction with Psychology 241 System Behavior or Psychology 181 Seminar	121
SFCC	Engineering 110 with English 205 Tech. Writing	19
SFCC	General Studies 106 College Success with English 99 Improved Writing	12
SFCC	Introduction to Deaf Culture 106 with English 151 Reading Study Skills	10
SFCC	English 98/99 Improving Writing with English 94 or 151 Reading Study Skills	22
SFCC	Musical Events 191 with Music 107 Introduction or Music 223 History with English 101 or 201	24
SFCC	Journalism 110 Mass Media with Humanities 141 Film with Speech 101/English 109 Comp	42

INSTITUTION	LINKAGE	STUDENT COUNT
SFCC	Physics 100 Introduction with English 101 Comp	24
SFCC	History 103 Western Civilization with English 101 Comp or English 131 Literature	41
SFCC	English 101 or English 201 with English 131 Literature	36
SFCC	Gerontology 110 Leisure Living Learning with College Success 106	10
SFCC	English 98 with English 94 or 96	18

The number of students involved in the study comparing final grade rosters for stand-alone classes with learning community classes was 3,290. The number was divided evenly between 1,645 students in stand-alone classes and 1,645 students for learning community classes. The total number at NIC was 1,284 comprised of 858 female and 426 male students. The total number at SFCC was 2,006 with 1,153 females and 853 male students. In NIC's stand-alone classes there were 414 females and 228 males involved in the study. In NIC's learning community classes there were 444 females and 198 males. In SFCC's stand-alone classes there were 582 females and 421 males. In SFCC's learning community classes there were 571 females and 432 males. Consult Charts 1 & 2 (pages 35 and 36) for gender percentages in this study at NIC and SFCC respectively.

On the NIC final grade rosters the students were further identified by three categories: freshman, sophomore, or non-matriculated. In the stand-alone classes there were 310 freshman, 225 sophomores, and 107 non-matriculated students involved in the study. In the learning community classes there were 425 freshmen, 148 sophomores, and 69 non-matriculated students. This categorization was not available on the SFCC final grade rosters.

CHART 1 NIC Gender Percentages from Final Grade Roster Analysis for Stand-alone (SA) and Learning Community (LC) Classes

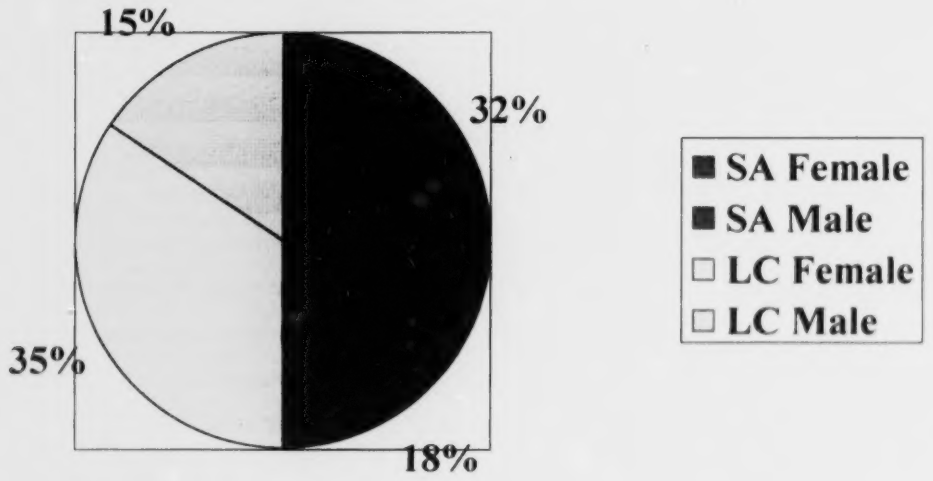
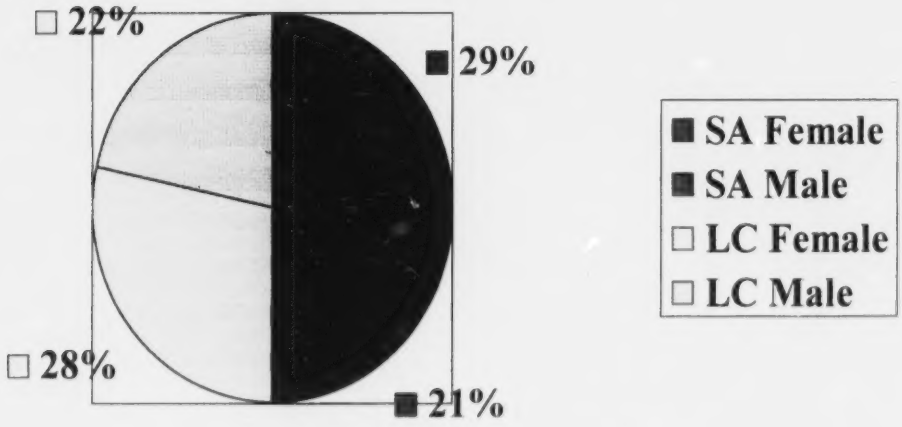


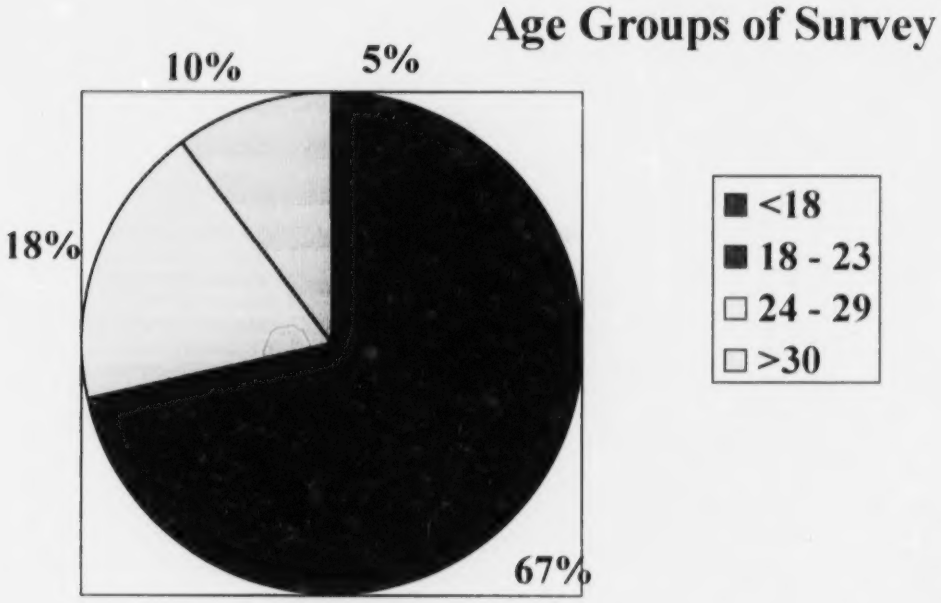
CHART 2 SFCC Gender Percentages from Final Grade Roster Analysis for Stand-alone (SA) and Learning Community (LC) Classes



The total number of students involved in the learning community survey (see Appendix C) was 222. The number for NIC was 60 and for SFCC was 162 students. Of these 222 students 74 were male and 148 females. Ages were separated into three categories as 18-23 years old, 24-29, and 30 and above. Consult Chart 3 (page 38) for these percentages. Students involved in the learning community survey were all students in attendance in selected learning community classes the last week of the semester (NIC) or quarter (SFCC). At NIC students were surveyed in the following three learning communities in the 1998 spring semester and in one of the learning communities in the 1999 spring semester: Speech 233 Interpersonal Communication with Sociology 220 Marriage and the Family, History 111 Survey of U.S. History with English 101 Composition, Psychology 101 Introduction with English 101 Composition. At SFCC students were surveyed in the following seven learning communities in the 1999 fall quarter: Psychology 101 Introduction with English 131 Introduction to Literature with English 101 or 201 Composition, English 278 Women Writers with English 101 or 201 Composition, Psychology 101 Introduction with Psychology 241 System Behavior or Psychology 181 Seminar, English 98 Writing Lab with English 94 Study Skills or English 96 Reading Improvement, Engineering 110 Problems & Orientation with English 205 Technical Writing, General Studies 106 College Success with English 99 Improved Writing, Interpreter Training Program 106 Introduction to Deaf Culture with English 151 Reading Study Skills.

The other subjects other than students are the instructors who have taught both stand-alone and learning community classes of the same course (see Table 2 for degree earned, institution, status of employment, and role played in the study). Eight instructors, five males

CHART #3 Learning Community Survey Age Group Percentages at NIC and SFCC.



and three females, were involved in the study from NIC. Twenty-eight instructors, ten males and eighteen females, were involved from SFCC.

Table 2 Instructors

FRA = Final Roster Analysis
I = Semi-structured interview
G = Group focus interviews
S = Student LC Survey
U = University of Washington student evaluations

INSTRUCTOR	DEGREE	COLLEGE	STATUS	STUDY ROLE
A	MA Comm.	NIC	Full-time	FRA, I, S, G
B	MA Sociology	NIC	Full-time	FRA, I, S,U, G
C	MA Psychology	NIC	Full-time	FRA, I, S,U
D	Ph.D. English	NIC	Full-time	FRA, I,S
E	MA English	NIC	Full-time	FRA, I, U
F	MA English	NIC	Full-time	FRA, I
G	M.A. English	NIC	Full-time	FRA
H	Ph.D. History	NIC	Full-time	FRA
AA	MA English	SFCC	Part-time	FRA
AB	M.F.A.	SFCC	Full-time	FRA
AC	MA Education	SFCC	Full-time	FRA
AD	Ph.D. Music	SFCC	Full-time	FRA, I
AE	M.A. English	SFCC	Part-time	FRA
AF	M.A. History	SFCC	Part-time	FRA
AG	M.A. English	SFCC	Full-time	FRA
AH	M.A. English	SFCC	Part-time	FRA, S

INSTRUCTOR	DEGREE	COLLEGE	STATUS	STUDY ROLE
AI	M.A. Art	SFCC	Part-time	FRA
AJ	Ph.D. Interp. Tr.	SFCC	Full-time	FRA
AK	Ph.D. Psych	SFCC	Full-time	FRA, S
AL	M.A. English	SFCC	Full-time	FRA
AM	M.A.T. Comm	SFCC	Full-time	FRA, G
AN	M.A. English	SFCC	Part-time	FRA, S
AO	Ph.D. Psych	SFCC	Full-time	FRA, S, I
AP	M.A. Journalism	SFCC	Full-time	FRA
AQ	Ph.D. Physics	SFCC	Full-time	FRA
AR	M.F.A. English	SFCC	Full-time	FRA
AS	M.A. English	SFCC	Part-time	FRA, S
AT	M.A. English	SFCC	Part-time	FRA
AU	M.A. English	SFCC	Full-time	FRA, S, I
AV	M.A. English	SFCC	Part-time	FRA
AW	M.A. English	SFCC	Part-time	FRA, S
AX	M.A. Reading	SFCC	Full-time	FRA, S
AY	M.A. English	SFCC	Full-time	S
AZ	Ph.D. English	SFCC	Full-time	S
BA	Ph.D. Psych	SFCC	Full-time	S
BB	Ph.D. English	SFCC	Full-time	S, I
BC	M.S. Engineer	SFCC	Full-time	S

Instruments

Final grade rosters from learning community and stand-alone classes of the same course that were taught by the same instructor were used in determining if any significant differences existed in grade point averages between these two different modes of delivery. The same rosters were used in order to calculate the percentage of students who withdrew from the learning community versus the stand-alone classes.

Student instructor evaluation records (see Appendix D) at NIC were used to compare differences between linked, paired, and unlinked courses. The Instructional Assessment System evaluation forms were developed by the University of Washington's Office of Educational Assessment in 1995. Form A was used with a reliability ranging from .84 to .90 on items 1 - 4 and .80 or greater on the other items. Content validity was established from a large number of similar surveys that were given nationally. The results of the evaluation were presented in median scores from a Likert scale along with decile ranks based on those median scores. The form has twenty-seven items that an instructor and course may be evaluated upon but for the purposes of this study only the following items were selected for comparison:

Item #1 The course as a whole was:

Item #2 The course content was:

Item #3 The instructor's contribution to the course was:

Item #4 The instructor's effectiveness in teaching the subject matter was:

Item #12 Instructor's enthusiasm was:

Item #13 Encouragement given students to express themselves:

Item #17 Instructor's interest in whether students learned was:

Item #18 Amount you learned in the course was:

Item #19 Relevance and usefulness of course content were:

Item #21 Reasonableness of assigned work was:

Item #24 The intellectual challenge presented was:

Item #26 The amount to succeed in this course was:

Item #27 Your involvement in course (assignments, attendance, etc.) was:

A survey was administered to students in the learning community classes in the spring of 1998 and 1999 at NIC in order to measure the satisfaction level, feeling of community and understanding of interdisciplinary connections. The same survey was administered to students in paired, linked, and coordinated studies classes at SFCC the fall quarter of 1999. The results of the survey were used to measure any significant differences in the responses between gender, age, and freshman or sophomore status. The survey was ten questions long, administered by the instructor in those courses, and was answered using a form that consisted of a five point Likert scale (see Appendix E).

Because no available pre-existing surveys could be found at the start of this study that were designed to specifically cover the research questions, the survey had to be created especially for this study. The survey was sent to the Washington Center where a learning community expert gave the survey a high content validity rating. The reliability rating was performed by comparing a pilot study that was conducted at NIC in the spring of 1998 with the study conducted in the spring and fall of 1999. A Cronbach alpha coeffecient score of .68 was recorded. The score is not indicative of a high degree of reliability yet the small size of the pilot study surveys may be partly responsible for this.

Faculty interview guides (see Appendix F) were used to conduct semi-structured interviews with faculty members who taught both linked or paired classes and unlinked classes of the same course. These interview guides were sent to the Washington Center learning community experts to confirm content validity. Faculty members were asked to share their experiences between having taught in learning community versus standing-alone classes. Their responses were recorded and analyzed. A common list of seven open-ended questions was asked to each interviewee. Subject selection was based on asking all six of the instructors who were teaching all of the learning community classes available at NIC during the spring of 1998. All six agreed and were interviewed. Follow-up interviews with three of the instructors were conducted in the spring of 1999. The same interview guides were used at SFCC in the winter quarter of 2000. Four faculty members at SFCC were selected using convenience sampling (based on availability of their schedules with that of the researcher). Since all four of the instructors at SFCC were directly supervised by the researcher who was their dean of instruction, each interview started with a full explanation of the purpose of the interview and a question of whether the supervisory role of the researcher would in any way bias the answers given by the interviewees. Each instructor responded that they believed the relationship would not bias the interview in any way. At NIC three of the instructors interviewed were under the supervision of the researcher. The long history of working as a colleague with these three individuals ruled out intimidation as a factor. Of the ten faculty members interviewed, all were full-time, eight had received tenure, four possessed doctorates, one was writing her doctorate, and the other five possessed a Master of Arts degree.

Focus group topic interview guides (see Appendix G) were used to conduct semi-structured group focus interviews with students who had nearly completed learning community classes. Four focus group interviews were conducted in all, two at each institution. One focus group interview was conducted at NIC near the end of the 1998 fall semester with six students in the learning community of Interpersonal Communication linked with Marriage and the Family. The other interview was conducted at the end of the 1999 spring semester with eleven students that had been involved in the same learning community course linkage. At SFCC the interviews were held before the end of the 2000 winter quarter. The two SFCC focus groups, the first group composed of eight students and the second group of four students, were from the same coordinated studies learning community that linked Intercultural Communication, Global Cinema, first and second year English Composition, Introduction to Speech and Effective Speaking.

The researcher used the guides to interview groups of four to eleven students. The guides contained a description of suggested protocol along with nine questions that focused on two areas: learning across disciplines and community building. Follow-up question prompts were also included on the guides. The guides were sent to the Washington Center learning community experts to confirm content validity.

Procedures

The Registrars at NIC and SFCC as well as the Vice Presidents of Instruction granted their approval of this research project and released the appropriate records. Instructors of the courses under research granted permission and cooperated in the study.

Instructors teaching linked, paired, and coordinated studies classes asked for six to eight student volunteers from their classes to participate in the focus group interviews. Aliases rather than actual student names were used in the results recorded in Chapter Four.

Design of the Quantitative Portion of the Study

The quantitative portion of this study was a causal-comparative research method. Paired Sample T Tests on the learning community versus stand-alone courses comparing final grades were used to test the first research question that no significant difference exists between final course grades in learning community and stand-alone classes. Classes used in the comparison were taught by the same instructor to rule out the variable of different instructors. The statistical software SPSS 9.0 was used to conduct the tests. The rationale for choosing the SPSS Paired Sample T Test procedure is that it tests the null hypothesis that the population mean of a variable is the same for two groups of cases (Norusis, 1997, p. 248).

Descriptive statistical analysis of means was conducted on withdrawal rates between learning community and stand-alone classes. The withdrawal numbers were gathered from final grade rosters. This analysis serves as the test for the second research question and the implied null hypothesis that no difference exists concerning withdrawal rates between learning community and stand-alone classes.

Descriptive statistical analysis of means was conducted on Likert Scale ratings of student surveys administered to all students of eight linkages (total of sixteen courses). The analysis was done using SPSS 9.0 cross-tabulation procedures. The following null hypotheses implied by the third research question were addressed: no difference exists

between different learning communities concerning collaboration by faculty in planning the courses; no difference exists between freshmen and sophomore students concerning rating collaboration by faculty in planning the courses; no difference exists between different linked learning communities concerning successful integration of the subject content; no difference exists between freshmen and sophomore students concerning rating successful integration of the subject content; no difference exists between different linked learning communities concerning willingness to speak out more in class in learning community versus stand-alone classes; no difference exists between female and male students concerning willingness to speak out more in learning community versus stand-alone classes; no difference exists between younger (18-23) and older $\leq$ 24) students concerning willingness to speak out in linked versus unlinked classes; no difference exists between freshmen and sophomore students concerning willingness to speak out in learning community versus stand-alone classes; no difference exists between different linked learning communities concerning how the learning community class captured the student's interest; no difference exists between freshmen and sophomore students concerning rating how the linked class captured the student's interest; no difference exists between different linked learning communities concerning rating how learning community classes challenge the student to think; no difference exists between different linked learning communities concerning rating how learning community classes allowed the student to make interdisciplinary connections; no difference exists between younger and older students concerning rating how linked courses allowed the student to make interdisciplinary connections; no difference exists between different linked learning communities concerning the sense of community a student develops with fellow students; no difference exists between female and male students concerning the

sense of community a student develops with fellow students; no difference exists between younger and older students concerning the sense of community a student develops with fellow students; no difference exists between freshmen and sophomore students concerning the sense of community a student develops with fellow students.

Descriptive statistical analysis of means was conducted on Form A of student evaluations forms developed by the University of Washington. The form analysis of learning community and stand-alone classes taught by the same instructor allowed for a comparison of the means to be made. The following null hypotheses were addressed by the analysis: no difference exists between how high students evaluate a course between learning community and stand-alone classes on student evaluations; no difference exists between how high students evaluate an instructor between learning community and stand-alone classes on student evaluations.

Independent Variables

- Two treatments: linked or paired courses and stand-alone courses.

Categorical Variables

- Gender
- Two age groupings (18-23 or 24 and older)
- Freshman or sophomore standing, linked learning communities
- Faculty teaching both learning community and stand-alone classes

Dependent Variables

- Final course grades in both learning community and stand-alone classes of the same course taught by the same instructor

- Withdrawal rates in both learning community and stand-alone classes taught by the same instructor
- Experiences of learning community students
- Experiences of faculty members who teach both in learning communities and stand-alone classes

Design of the Qualitative Portion of the Study

Using the qualitative research methodology of van Manen (1990) a heuristic phenomenological analysis of clustered themes was conducted using NUDIST qualitative research software. The analysis of clustered themes used the data from two separate sources. Transcripts from focus group interviews with volunteer students from selected learning community classes was one source. Transcripts from interviews with faculty members who teach both learning community and stand-alone classes of the same course was the other source. Themes were identified, defined and coded, and then sorted according to those codes. The themes that commonly occurred in both the faculty interviews and the focus group interviews were identified. The themes that commonly occurred in either the student group or the faculty group but not in both were also identified. The findings were then interpreted for meaning. The use of the heuristic phenomenological method was used to explain what the experience was like for students and faculty participating in the learning community classes. This method was designed to provide insight into the following research questions: what are the experiences of faculty who teach both in learning communities and stand-alone classes of the same course; what are the learning community experiences of a focus group of students who have taken both linked and stand-alone classes;

are there any similarities and discrepancies in the interviews of the faculty and focus groups of students that might help explain findings in the quantitative data?

A total of ten faculty members, six from NIC and four from SFCC, were interviewed and five of these ten faculty members were then consulted again in a follow-up session to discuss the researcher's interpretation of the data. Faculty feedback was recorded and entered into the research database. Four focus group interviews with students were conducted, two from each institution. The results of the various qualitative data were then triangulated with the results of the quantitative data and an interpretation of the significant findings was conducted.

Researcher as Instrument

> On the one hand it means that phenomenological research requires of the researcher that he or she stands in the fullness of life, in the midst of the world of living relationships and shared situations. On the other hand it means that the researcher actively explores the category of lived experience in all its modalities and aspects. (van Manen, 1990, p. 32)

As the current Dean of Instruction of Humanities and Social Sciences at SFCC, and formerly as the Division Chair of the Social & Behavioral Sciences and the Chair of General Education and Chair of Curriculum Council at NIC, I have been involved in an ongoing discussion about learning communities, and more specifically, about linked, paired, and coordinated studies classes. Both institutions have at least one type of these learning communities and the issues that surround them are similar at both. As Chair of General Education at NIC and earlier as a General Education Committee member I participated in an effort to design a more effective means of delivering the general education program. Over

determined to be essential for student success. During this time a committee at SFCC also identified their own set of student abilities. The discussion at both institutions had focused on the importance of making the connections between disciplines more apparent for students. The conversations have included learning communities as a possible solution for helping to establish interdisciplinary connections. At NIC general education workshops that I helped facilitate for our faculty had participants discussing the pedagogical approaches of teacher-centered versus learning-centered instruction where the topic of linked courses frequently arose.

Linked classes and the larger issue of learning communities have always intrigued me as a way to address many of today's curricular problems that exist on community college campuses. The questions of how do we do a better job of retaining students, how do we do a better of job of helping students make connections, and how do we do a better job of building community are questions I have always believed need to be constantly addressed.

In my administrative roles at NIC and currently at SFCC I have been involved in both the positive and the negative sides of learning communities. Having observed instructors of learning community classes for faculty evaluation purposes I have noticed the apparent rewards that faculty members enjoy when they work closely with someone from another discipline. The teamwork seems to result in a much greater respect for the other instructor as well as a greater understanding of the other instructor's discipline. The team teaching approach seems to result in a more connected, seamless flow of applying the skills of one course to the content of another and intertwining that content in much more meaningful ways.

I have noticed the positive ambiance of learning community classes where students appear to know the names of their fellow students. This is contrasted to stand alone classes that I have observed or taught myself where the students know very few of the other students' names in the classroom. Working in groups is something that the students fall into naturally in learning communities without much facilitation from the instructors. I have observed that group work is seemingly more difficult in stand-alone classes where oftentimes some students are resistant to collaborative learning.

As an instructional administrator in charge of scheduling classes, I have found learning community classes to be very difficult to schedule. In my experience linked courses have always required that a classroom be reserved for back to back classes, many times requiring that a class from another discipline or division of instruction be placed in a building uncommon to that discipline. At both the NIC and SFCC campuses there is a paucity of available classrooms. Student enrollments in linked, paired, and coordinated studies classes are often low due to the fact that students may want or need only one course in the linkage. Their schedules may not permit them to take the linked classes due to the restrictions on their time. Because of the problem of low enrollments the issue of FTE's (full-time enrolled student counts) is an issue, especially at SFCC where funding is based heavily on FTE numbers. Many times if the courses were listed separately instead of as a linkage the enrollment figures would be higher.

Instructors involved in learning communities often request release time because of the extensive time it takes to coordinate the linkage with shared assignments and lesson plans. Granting release time generally equates into hiring adjunct faculty to cover the class from which the learning community instructor has been released, further adding to the

expense of linked courses. Refusing to grant release time discourages some faculty from teaching linked classes as I observed at NIC.

The main problem for me has been a lack of data to help me weigh the difficult decisions that must be made. Philosophically I have always believed that learning communities made good pedagogical sense. As an instructor of philosophy for many years, philosophers such as Dewey, Whitehead, Merleau-Ponty, and Gill whom I have admired and taught my students about would agree with the concept of learning communities. Because of my involvement in this issue of learning communities and because of my position as an instructional administrator who has to make decisions about linked courses, I have both a practical need and a competence in this area of research. I need to know more than whether learning communities make sense philosophically. I have designed my research specifically to give me some insight and answers that I so desperately need to make competent decisions regarding learning communities..

> Place yourself in the context you wish to understand. Recognize that you, the people and situations you are trying to comprehend, are also an interpreter, or, if you like, a hermeneut. We are all hermeneuts. We find significance and meaning in the world everywhere. (Barrit, L., H. Bleeker, T. Beekman, K. Mulderij, 1985, p. 22)

CHAPTER FOUR

RESULTS

Comparative Analysis of Learning Community and Stand-Alone Final Roster Grades

The paired t-test results comparing the students' final grades in learning community (LC) classes against stand-alone (SA) classes of thirty-four comparisons showed the following: None of the comparisons revealed that student grades were significantly better (.05 level of significance) in LC than in SA; Twenty-five of the comparisons revealed that student grades were not significantly better in either the LC or the SA; Nine of the comparisons revealed that student grades were significantly better in SA than in LC.

At NIC three comparisons resulted in significantly higher SA class student final grades than in the LC class. Seven of the comparisons resulted in no significant difference between SA and LC. At SFCC six comparisons between LC and SA classes resulted in significantly higher SA final grade scores. Eighteen comparisons at SFCC resulted in no significant difference. Refer to Table 3 and 4 (pages 54 -55) for these details.

Table 3 Paired T-Tests with no significant difference between SA and LC

COURSE	COLLEGE	INSTRUCTOR	# OF PAIRS *	SIGNIFICANCE & MEANS
Psych 101	NIC	C	117	.416 SA 2.36 LC 2.50
Psych 205	NIC	C	88	.728 SA 2.92 LC 2.8
English 101	NIC	D	23	.577 SA 1.87 LC 1.76
English 102	NIC	D	77	.705 SA 2.63 LC 2.70

COURSES	COLLEGE	INSTRUCTOR	# OF PAIRS	SIGNIFICANCE & MEAN
English 101	NIC	F	67	.620 SA 2.7 LC 2.5
English 278	NIC	G	25	.082 SA 3.1 LC 2.34
History 111	NIC	H	22	.364 SA 1.96 LC 1.5
Gen. Ed. 106	SFCC	AA	31	.162 SA 1.75 LC 2.38
Art 112	SFCC	AB	26	.339 SA 2.02 LC 1.58
ITP 101	SFCC	AC	41	.789 SA 1.92 LC 2.01
Music 191	SFCC	AD	24	.666 SA 2.3 LC 2.6
English 101	SFCC	AE	23	.384 SA 2.73 LC 2.49
History 103	SFCC	AF	41	.249 SA 2.51 LC 2.07
Art 112	SFCC	AI	31	.485 SA 2.90 LC 2.30
HSEAR 106	SFCC	AJ	22	.485 SA 2.78 LC 1.14
Psychology 101	SFCC	AK	126	.512 SA 2.66 LC 2.56
English 101	SFCC	AN	78	.169 SA 1.86 LC 1.54
Psychology 101	SFCC	AO	92	.724 SA 3.21 LC 3.15
Journalism 110	SFCC	AP	40	.305 SA 3.08 LC 2.77
English 101	SFCC	AR	33	.146 SA 3.09 LC 2.54
English 101	SFCC	AS	27	.402 SA 2.63 LC 2.54
English 101	SFCC	AT	28	.241 SA 3.06 LC 2.79
English 246	SFCC	AU	35	.096 SA 2.71 LC 2.30
English 151	SFCC	AX	22	.315 SA 2.01 LC 2.54
English 205	SFCC	AW	22	.786 SA 2.88 LC 2.98

# of pairs refers to the number of LC and SA pairings, one-half the number of students.

Table 4 Paired T-Tests with SA significantly higher than LC

COURSE	COLLEGE	INSTRUCTOR	# OF PAIRS	SIGNIFICANCE & MEANS
Speech 233	NIC	A	89	.003 SA 2.86 LC 2.27
Sociology 220	NIC	B	53	.002 SA 3.35 LC 2.9
History 112	NIC	E	82	.032 SA 1.93 LC 1.49
Humanities 101	SFCC	AG	85	.000 SA 2.9 LC 2.3
English 101	SFCC	AH	26	.000 SA 2.78 LC 1.14
Humanities 101	SFCC	AL	42	.002 SA 2.92 LC 2.07
Speech 220	SFCC	AM	52	.002 SA 3.08 LC 2.17
Physics 100	SFCC	AQ	24	.019 SA 2.5 LC 1.63
English 101	SFCC	AV	32	.018 SA 2.93 LC 2.22

The summary results of comparing all the class final grade roster means using the paired t-test showed a significant difference for SA over LC classes taught by the same instructor at NIC and SFCC (see Graphs 1, 2 & 3, pages 57 - 59). The results for NIC specifically and SFCC specifically are also shown (see Graphs 4 – 9, pages 60 – 63). The combined comparisons for NIC showed there was a significant difference with SA final roster grades higher than LC final roster grades. The same was true at SFCC with a significant difference for higher SA grades over LC grades.

Withdrawals

Of the thirty-four comparisons (involving 3,290 students) between stand-alone classes and learning community classes taught by the same instructor, the total number of withdrawals at the two community colleges was 121 for stand-alone classes and 141 for learning community classes. At NIC the withdrawal numbers were 63 for stand-alone classes and 76 for learning community classes. At SFCC the withdrawal numbers were 58 for stand-alone classes and 65 for learning community classes. At both colleges the number of withdrawals was higher for learning community classes than it was for stand-alone classes.

At NIC six of the ten comparisons between stand-alone and learning community classes showed learning community classes with fewer withdrawals, in three of the comparisons the stand-alone classes had fewer withdrawals, and in one of the comparisons the number of withdrawals was the same between the two groups (see Appendix C).

At SFCC seven of the twenty-four comparisons between stand-alone and learning community classes showed learning community classes with fewer withdrawals, in fourteen the stand-alone classes had fewer withdrawals, and in three of the comparisons the number of withdrawals was the same (see Appendix C).

Graph # 1 Statistical Comparative Analysis of Final Grade Rosters for NIC & SFCC Stand-Alone Versus Learning Community Classes.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Stand-alone courses	34	1.75	3.40	2.6188	.4653
Learning community courses	34	1.14	3.15	2.2706	.4692
Valid N (listwise)	34				

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Stand-alone courses	2.6188	34	.4653	7.981E-02
	Learning community courses	2.2706	34	.4692	8.047E-02

Paired Samples Correlations

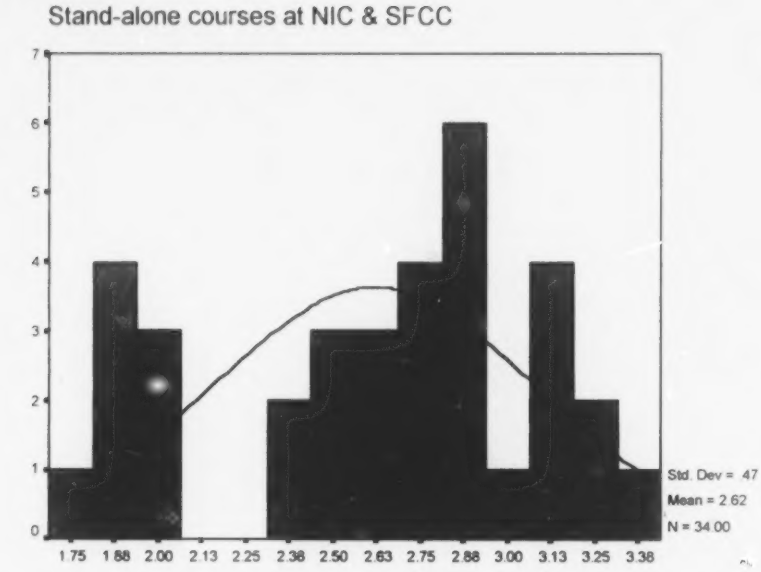
		N	Correlation	Sig.
Pair 1	Stand-alone courses & Learning community courses	34	.520	.002

Paired Samples Test

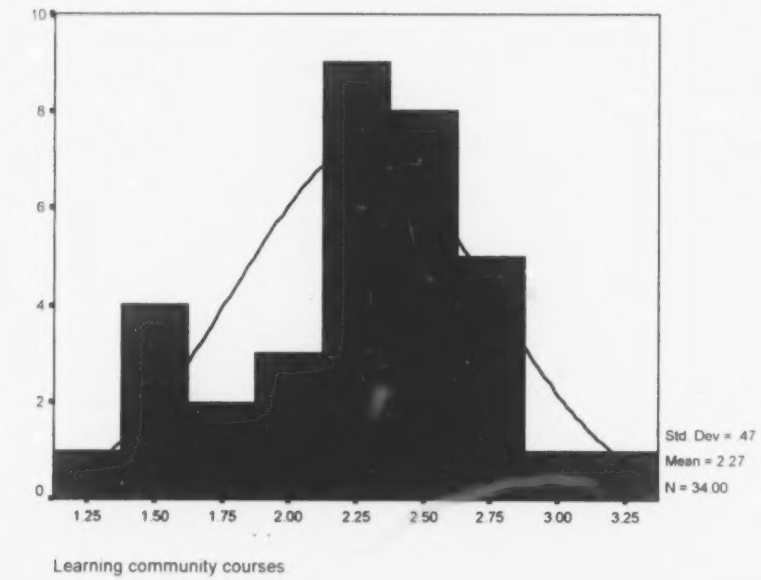
	Paired Differences				t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			

					Lower	Upper			
Pair 1	Stand-alone courses - Learning community courses	.3482	.4579	7.853E-02	.1885	.5080	4.434	33	.000

Graph # 2



Graph # 3



Graph # 4 Paired T-test Results for NIC

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	NIC Stand Alone Class Mean	2.5846	10	.5366	.1697
	NIC Learning Community Class Mean	2.2616	10	.4941	.1562

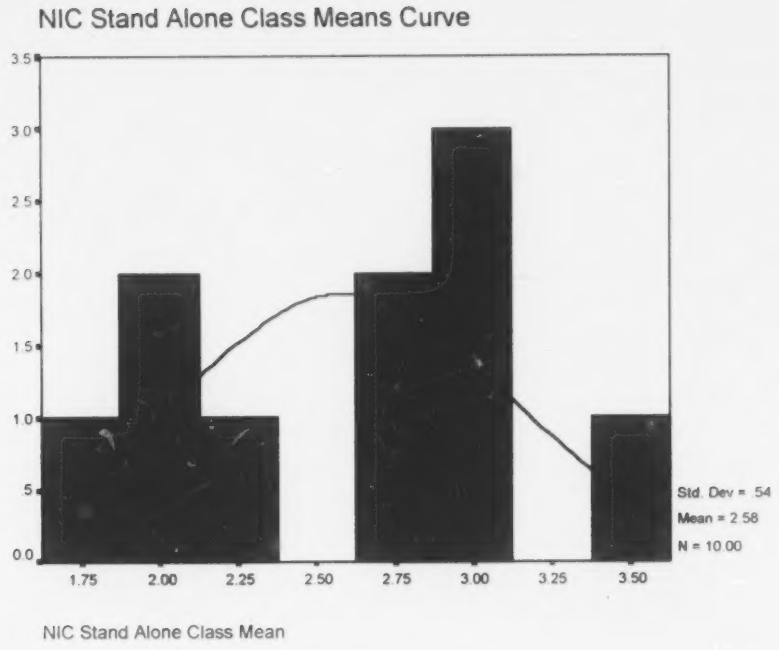
Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	NIC Stand Alone Class Mean & NIC Learning Community Class Mean	10	.789	.007

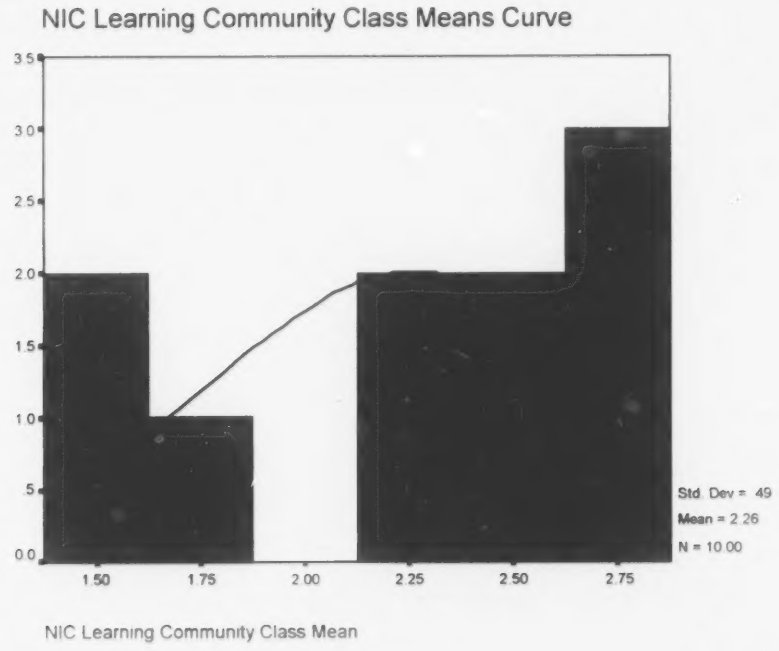
Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	NIC Stand Alone Class Mean - NIC Learning Community Class Mean	.3230	.3369	.1065	8.203E-02	.5640	3.032	9	.014

Graph # 5



Graph # 6



Graph # 7 Paired T-test Results for SFCC

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	SFCC Stand Alone Means	2.6379	24	.4485	9.154E-02
	SFCC Learning Community Means	2.2963	24	.4778	9.753E-02

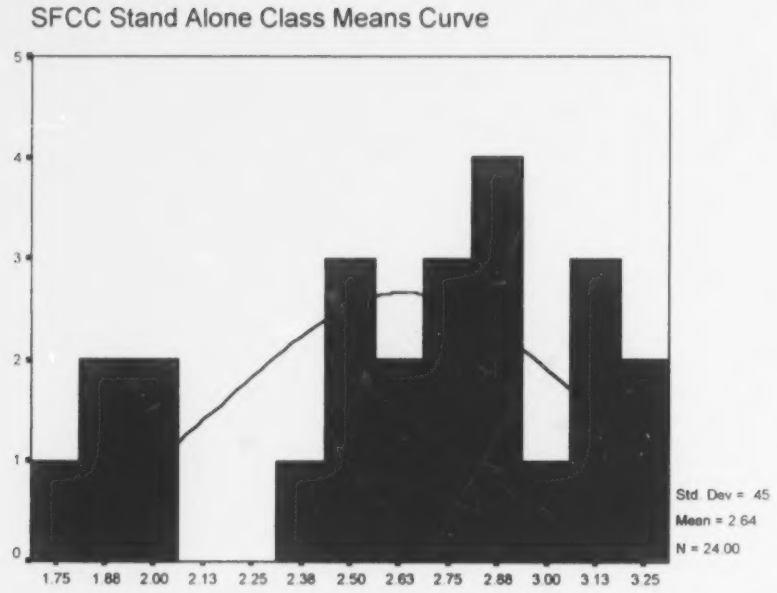
Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	SFCC Stand Alone Means & SFCC Learning Community Means	24	.446	.029

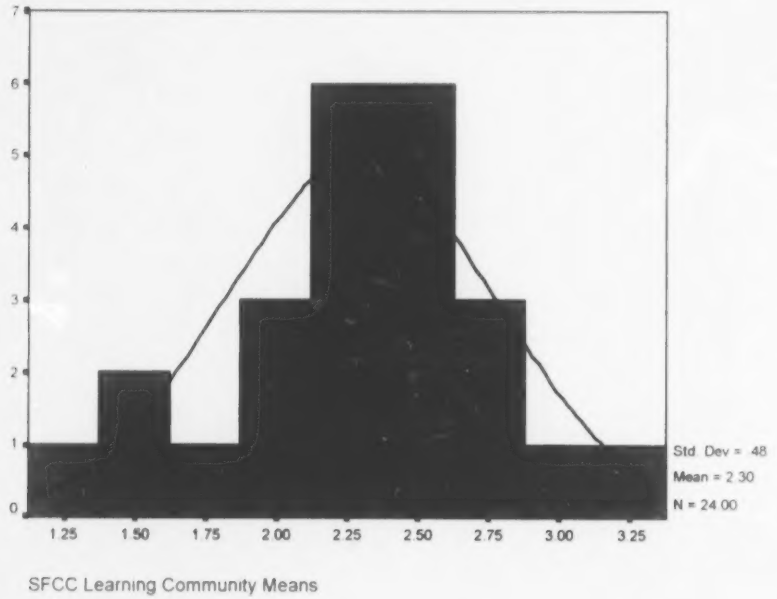
Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	SFCC Stand Alone Means - SFCC Learning Community Means	.3417	.4881	9.963E-02	.1356	.5478	3.430	23	.002

Graph # 8



Graph # 9



Instructional Assessment System Student Evaluations

The comparative median analysis of the Instructor Assessment System (IAS) student evaluations (see Appendix D) resulted in learning community classes being evaluated as slightly higher overall by students than were stand-alone class evaluations (paired samples test significance of .908). Of the thirty-six comparisons between stand-alone and learning community classes of the same course taught by the same instructor, one comparison showed the same median score, fourteen comparisons showed learning community classes to have higher median scores, and twenty-one comparisons showed stand-alone classes to have higher median scores. The specific item results from comparing median scores from student evaluations of NIC instructors B, C, and E are addressed in the following:

Item #1 The course as a whole was:

Instructor B	Stand-alone 4.57	Learning Community 4.63
Instructor C	Stand-alone 4.33	Learning Community 4.16
Instructor E	Stand-alone 3.70	Learning Community 3.44

Item #2 The course content was:

Instructor B	Stand-alone 4.53	Learning Community 4.63
Instructor C	Stand-alone 4.14	Learning Community 4.16
Instructor E	Stand-alone 3.90	Learning Community 3.75

Item #3 The instructor's contribution to the course was:

Instructor B	Stand-alone 4.69	Learning Community 4.80
Instructor C	Stand-alone 4.67	Learning Community 4.68
Instructor E	Stand-alone 4.10	Learning Community 4.00

Item #4 The instructor's effectiveness in teaching the subject matter was:

Instructor B	Stand-alone 4.53	Learning Community 4.58
Instructor C	Stand-alone 4.61	Learning Community 4.68
Instructor E	Stand-alone 4.00	Learning Community 3.75

Item #12 Instructor's enthusiasm was:

Instructor B	Stand-alone 4.78	Learning Community 4.76
Instructor C	Stand-alone 4.54	Learning Community 4.42
Instructor E	Stand-alone 4.20	Learning Community 4.19

Item #13 Encouragement given students to express themselves:

Instructor B	Stand-alone 4.76	Learning Community 4.76
Instructor C	Stand-alone 3.78	Learning Community 4.16
Instructor E	Stand-alone 4.40	Learning Community 3.92

Item #17 Instructor's interest in whether students learned was:

Instructor B	Stand-alone 4.63	Learning Community 4.74
Instructor C	Stand-alone 3.88	Learning Community 4.26
Instructor E	Stand-alone 3.80	Learning Community 3.38

Item #18 Amount you learned in the course was:

Instructor B	Stand-alone 4.56	Learning Community 4.59
Instructor C	Stand-alone 4.00	Learning Community 3.74
Instructor E	Stand-alone 3.90	Learning Community 3.43

Item #19 Relevance and usefulness of course content were:

Instructor B	Stand-alone 4.77	Learning Community 4.59
Instructor C	Stand-alone 4.09	Learning Community 3.79
Instructor E	Stand-alone 3.90	Learning Community 3.50

Item #21 Reasonableness of assigned work was:

Instructor B	Stand-alone 4.53	Learning Community 3.88
Instructor C	Stand-alone 3.95	Learning Community 3.90
Instructor E	Stand-alone 3.90	Learning Community 3.69

Item 24 The intellectual challenge presented was:

Instructor B	Stand-alone 5.41	Learning Community 5.58
Instructor C	Stand-alone 4.71	Not available
Instructor E	Stand-alone 5.20	Learning Community 5.50

Item 26 The amount to succeed in this course was:

Instructor B	Stand-alone 5.05	Learning Community 5.92
Instructor C	Stand-alone 5.00	Not available
Instructor E	Stand-alone 5.10	Learning Community 5.00

Item 27 Your involvement in course (assignments, attendance, etc.) was:

Instructor B	Stand-alone 5.78	Learning Community 6.35
Instructor C	Stand-alone 4.45	Not available
Instructor E	Stand-alone 5.40	Learning Community 4.75

Descriptive Statistical Analysis of Learning Community Surveys

Survey results of the eleven learning communities surveyed showed students generally rated their learning community experiences as superior to that of stand-alone courses. The means for each survey question are shown in the following for each learning community surveyed. Gender, year in college, and age of the students are also cross-tabulated with the survey questions. Female students rated the learning community

experience more favorably than males in seven of the nine questions. On question #4 both males and females responded about the same, and on question #5 males responded more favorably than did females. Nontraditional students (twenty four years of age or older) responded more favorably to learning communities than did traditional (eighteen to twenty-three years of age) students. Sophomore, or second year students, responded more favorably to learning communities than did freshmen, or first year students.

Question #1 To what extent is there evidence of collaboration (working together) by faculty in planning these courses?

NIC Speech 233 / Sociology 220

Mean 4.63 Gender: Female 4.56, Male 4.88

College year: Freshmen 4.53, Sophomores 4.86

Age: 18– 23 4.52

24 – 29 5.00

> 30 4.50

NIC Psych 101 / English 101

Mean 4.64 Gender : Female 4.75, Male 4.50

College year: Freshmen 4.56, Sophomores 4.67

Age: 18 – 23 4.56

24 – 29 4.00

> 30 5.00

NIC History 111 / English 101

Mean 3.40 Gender: Female 3.50, Male 3.00

College year: Freshman 3.40

Age: 18 – 23 3.4

SFCC Psych 101 / English 101, 201 / Eng. 131

Mean 3.95 Gender: Female 3.88, Male 4.08

College year: Freshmen 3.94, Sophomores 4.00

Age: 18 – 23 3.71

24 – 29 4.00

SFCC English 101, 201 / English 295

Mean 4.52 Gender: Female 4.54, Male 4.33

College year: Freshmen 4.50, Sophomores 4.75

Age: 18 – 23 4.50

24 – 29 5.00

SFCC Psych 101 / Psych 181 0r 241

Mean 4.29 Gender: Female 4.25, Male 4.40

College year: Freshmen 4.10, Sophomores 4.57

Age 18 – 23 4.25

24 – 29 4.00

> 30 5.00

SFCC Engineering 110 / English 205

Mean 3.79 Gender: Female 4.25, Male 3.67

College year: Freshmen 4.00, Sophomores 3.56

Age: 18 – 23 4.07

24 – 29 3.00

> 30 3.00

SFCC College Success 106 / English 99

Mean 3.80 Gender: Female 4.25, Male 3.60

College year: Freshmen 3.71, Sophomores 4.00

Age: 18 – 23 3.63

> 30 4.50

SFCC ASL Interpreter Training 106 / English 151

Mean 4.80 Gender: Female 4.78, Male 5.00

College year: Freshmen 5.00, Sophomores 4.50

Age: 18 – 23 4.00

24 – 29 4.80

> 30 5.00

SFCC Gerontology 110 / College Success 106

Mean 4.50 Gender: Female 4.50

College year: Freshmen 5.00, Sophomores 3.5

Age: 24 – 29 4.25

> 30 5.00

SFCC English 98 / English 94 or 96

Mean 3.94 Gender: Female 4.14, Male 3.80

College year: Freshmen 3.88

Age: 18 – 23 3.77

24 – 29 4.50

> 30 4.00

Question #2 To what extent have faculty been successful in integrating subject content into the courses?

NIC Speech 233 / Sociology 220

Mean 4.75 Gender: Female 4.75, Male 4.75

College year: Freshmen 4.65, Sophomores 4.86

Age: 18 – 23 4.70

24 – 29 4.89

> 30 4.75

NIC Psych 101 / English 101

Mean 4.79 Gender: Female 4.63, Male 5.00

College year: Freshmen 4.89, Sophomores 4.67

Age: 18 – 23 4.89

24 – 29 5.00

< 30 4.50

NIC History 111 / English 101

Mean 3.80 Gender: Female 4.00, Male 3.00

College year: Freshman 3.80

Age: 18 – 23 3.40

SFCC Psych 101 / English 101, 201 / English 131

Mean 3.59 Gender: Female 3.67, Male 3.46

College year: Freshman 3.58, Sophomore 4.00

Age: < 18 3.43

18 – 23 3.63

SFCC English 101, 201 / English 295

Mean 4.41 Gender: Female 4.46, Male 4.00

College year: Freshman 4.41, Sophomore 4.75

Age: 18 – 23 4.38

24 – 29 5.00

SFCC Psychology 101 / Psychology 181, 241

Mean 4.28 Gender: Female 4.25, Male 4.33

College year: Freshman 4.09, Sophomore 4.57

Age: 18 – 23 4.08

24 – 29 4.67

> 30 5.00

SFCC Engineering 110 / English 205

Mean 3.74 Gender: Female 4.00, Male 3.67

College year: Freshman 3.80, Sophomore 3.67

Age: 18 – 23 3.79

24 – 29 3.50

< 30 3.67

SFCC College Success / English 99

Mean 3.92 Gender: Female 4.20, Male 4.00

College year: Freshman 3.88, Sophomore 4.00

Age: 18 – 23 3.67

> 30 4.67

SFCC ASL Interpreter Training 106

Mean 4.60 Gender: Female 4.56, Male 5.00

College year: Freshman 4.71, Sophomore 4.50

Age: 18 – 23 4.00

24 – 29 4.40

> 30 5.00

SFCC Gerontology 110 / College Success 106

Mean 4.83 Gender: Female 4.80

College year: Freshman 5.00, Sophomore 4.50

Age: 24 – 29 4.75

> 30 5.00

SFCC English 98 / English 94, 96

Mean 4.11 Gender: Female 4.25, Male 4.00

College year: Freshman 4.06

Age: 18 – 23 4.07

24 – 29 4.00

> 30 4.00

Question #3 Compared to stand-alone courses you have taken, to what extent in the learning community classes did you feel more comfortable speaking out in class discussions?

NIC Speech 233 / Sociology 220

Mean 4.63 Gender: Female 4.63, Male 4.88

College year: Freshman 4.65, Sophomore 4.59

Age: 18 – 23 4.48

24 – 29 4.89

> 30 5.00

NIC Psychology 101 / English 101

Mean 4.14 Gender: Female 4.25, Male 4.00

College year: Freshman 4.00, Sophomore 4.33

Age: 18 – 23 4.11

24 – 29 3.00

> 30 4.50

NIC History 111 / English 101

Mean 4.40 Female 4.50, Male 4.00

College year: Freshman 4.40, Sophomore 4.40

Age: 18 – 23 4.40

SFCC Psychology 101 / English 101, 201 / English 131

Mean 2.96 Gender: Female 3.22, Male 2.44

College year: Freshman 2.92, Sophomore 4.00

Age: < 18 3.00

18 – 23 2.95

SFCC English 101, 201 / English 295

Mean 3.54 Gender: Female 3.57, Male 3.33

College year: Freshman 3.48, Sophomore 3.75

Age: 18 – 23 3.48

24 - 29 4.00

SFCC Psychology 101 / 181, 241

Mean 3.94 Gender: Female 3.92, Male 4.00

College year: Freshman 3.55, Sophomore 4.57

Age: 18 – 23 3.85

24 – 29 4.33

> 30 4.00

SFCC Engineering 110 / English 205

Mean 3.47 Gender: Female 3.00, Male 3.57

College year: Freshman 3.56, Sophomore 3.38

Age: 18 – 23 3.69

24 – 29 1.00

> 30 3.33

SFCC College Success 106 / English 99

Mean 4.27 Gender: Female 4.50, Male 4.33

College year: Freshman 4.29, Sophomore 4.33

Age: 18 – 23 4.37

> 30 4.00

SFCC ASL Interpreter Training 106 / English 151

Mean 4.25 Gender: Female 4.25, Male 5.00

College year: Freshman 4.17, Sophomore 4.50

Age: 24 – 29 4.25

> 30 4.25

SFCC Gerontology 110 / College Success 106

Mean 4.71 Gender: Female 4.71

College year: Freshman 5.00, Sophomore 4.00

Age: 24 – 29 4.50

> 30 5.00

SFCC English 98 / English 94, 96

Mean 4.11 Gender: Female 4.25, Male 4.00

College year: Freshman 4.06

Age: 18 – 23 3.85

24 – 29 5.00

> 30 5.00

Question # 4 Compared to stand-alone classes you have taken to what extent have the learning community classes captured your interest?

NIC Speech 233 / Sociology 220

Mean 4.68 Gender: Female 4.69, Male 4.63

College year: Freshman 4.65, Sophomore 4.78

Age: 18 – 23 4.63

24 – 29 5.00

> 30 4.25

NIC Psychology 101 / English 101

Mean 4.71 Gender: Female 4.50, Male 5.00

College year: Freshman 4.78, Sophomore 5.00

Age: 18 – 23 4.89

24 – 29 4.00

> 30 4.50

NIC History 111 / English 101

Mean 4.20 Gender: Female 4.25, Male 4.00

College year: Freshman 4.20

Age: 18 – 23 4.20

SFCC Psychology 101 / English 101, 201 / English 131

Mean 3.00 Gender: Female 2.89, Male 3.18

College year: Freshman 2.96, Sophomore 4.00

Age: < 18 2.83

18 – 23 3.04

SFCC English 101, 201 / English 295

Mean 4.00 Gender: Female 4.04, Male 3.67

College year: Freshman 3.95, Sophomore 4.50

Age: 18 – 23 3.92

24 – 29 5.00

SFCC Psychology 101 / Psychology 181, 241

Mean 4.39 Gender: Female 4.58, Male 4.00

College year: Freshman 4.00, Sophomore 5.00

Age: 18 – 23 4.23

24 – 29 4.67

> 30 5.00

SFCC Engineering 110 / English 205

Mean 3.61 Gender: Female 3.67, Male 3.60

College year: Freshman 3.33, Sophomore 3.89

Age: 18 – 23 3.54

24 – 29 3.50

> 30 4.00

SFCC College Success 106 / English 99

Mean 4.33 Gender: Female 4.40, Male 4.50

College year: Freshman 4.25, Sophomore 4.33

Age: 18 – 23 4.11

> 30 5.00

SFCC ASL Interpreter Training 106 / English 151

Mean 4.60 Gender: Female 4.67, Male 4.00

College year: Freshman 4.71, Sophomore 4.50

Age: 18 – 23 4.00

24 – 29 4.40

> 30 5.00

SFCC Gerontology 110 / College Success 106

Mean 4.57 Gender: Female 4.40, Male 4.40

College year: Freshman 4.50, Sophomore 4.00

Age: 24 – 29 4.25

> 30 5.00

SFCC English 98 / English 94, 96

Mean 3.94 Gender: Female 3.88, Male 4.00

College year: Freshman 3.94

Age: 18 – 23 3.86

24 – 29 4.50

> 30 4.00

Question # 5 Compared to stand-alone courses you have taken, to what extent have these linked courses challenged you to think?

NIC Speech 233 / Sociology 220

Mean 4.38 Gender: Female 4.38, Male 4.38

College year: Freshman 4.53, Sophomore 4.27

Age: 18 – 23 4.41

24 – 29 4.44

> 30 4.00

NIC Psychology 101 / English 101

Mean 4.50 Gender: Female 4.38, Male 4.68

College year: Freshman 4.78, Sophomore 5.00

Age: 18 – 23 4.68

24 – 29 5.00

< 30 4.00

NIC History 111 / English 101

Mean 4.00 Gender: 4.00, Male 4.00

College year: Freshman 4.00

Age: 18 – 23 4.00

SFCC Psychology 101 / English 101, 201 / English 131

Mean 3.33 Gender: Female 3.16, Male 3.64

College year: Freshman 3.34, Sophomore 3.00

SFCC English 101, 201 / English 295

Mean: 4.26 Gender: Female 4.33, Male 3.67

College year: Freshman 4.27, Sophomore 4.50

Age: 18 – 23 4.21

24 – 29 5.00

SFCC Psychology 101 / Psychology 181, 241

Mean 4.50 Gender: Female 4.33, Male 4.83

College year: Freshman 4.27, Sophomore 4.86

Age: 18 – 23 4.38

24 – 39 5.00

> 30 4.50

SFCC Engineering 110 / English 205

Mean 3.29 Gender: Female 3.33, Male 3.29

College year: Freshman 3.25, Sophomore 3.33

Age: 18 – 23 3.15

24 – 29 3.00

> 30 4.50

SFCC College Success 106 / English 99

Mean 3.83 Gender: Female 3.80, Male 3.83

College year: Freshman 3.63, Sophomore 4.33

Age: 18 – 23 3.67

> 30 4.33

SFCC ASL Interpreter Training 106 / English 151

Mean 4.30 Gender: Female 4.22, Male 5.00

College year: Freshman 4.43, Sophomore 4.00

Age: 18 – 23 4.00

24 – 29 4.20

> 30 5.00

SFCC Gerontology 110 / College Success 106

Mean 4.68 Gender: Female 4.50

College year: Freshman 4.50, Sophomore 4.00

Age: 24 – 29 4.68

> 30 4.68

SFCC English 98 / English 94, 96

Mean 4.06 Gender: Female 4.25, Male 3.90

College year: Freshman 4.00

Age: 18 – 23 3.86

24 – 29 5.00

> 30 4.00

Question # 6 Compared to stand-alone classes you have experienced, to what extent have these learning community classes helped you make connections between disciplines?

NIC Speech 233 / Sociology 220

Mean 4.44 Gender: Female 4.48, Male 4.88

College year: Freshman 4.40, Sophomore 4.64

Age: 18 – 23 4.42

24 – 29 4.89

> 30 4.75

NIC Psychology 101 / English 101

Mean 4.50 Gender: Female 4.38, Male 4.67

College year: Freshman 4.78, Sophomore 4.00

Age: 18 – 23 4.67

24 – 29 5.00

> 30 4.00

NIC History 111 / English 101

Mean 3.20 Gender: Female 3.25, Male 3.00

College year: Freshman 3.20

Age: 18 – 23 3.20

SFCC Psychology 101 / English 101, 201 / English 131

Mean 2.86 Gender: Female 2.61, Male 3.27

College year: Freshman 2.86, Sophomore 3.00

Age: < 18 3.00

18 – 23 2.83

SFCC English 101, 201 / English 295

Mean 3.79 Gender: Female 3.82, Male 3.50

College year: Freshman 3.65, Sophomore 4.50

Age: 18 – 23 3.81

24 – 29 4.00

SFCC Psychology 101 / Psychology 181, 241

Mean 3.88 Gender: Female 3.82, Male 4.00

College year: Freshman 3.56, Sophomore 4.29

Age: 18 – 23 3.64

24 – 29 4.67

> 30 4.00

SFCC Engineering 110 / English 205

Mean 3.89 Gender: Female 4.00, Male 3.87

College year: Freshman 4.30, Sophomore 3.44

Age: 18 – 23 3.93

24 – 29 3.00

> 30 4.33

SFCC College Success 106 / English 99

Mean 3.89 Gender: Female 4.67, Male 3.40

College year: Freshman 3.40, Sophomore 4.67

Age: 18 – 23 3.83

> 30 4.00

SFCC ASL Interpreter Training 106 / English 151

Mean 4.40 Gender: Female 4.44, Male 4.00

College year: Freshman 4.57, Sophomore 4.00

Age: 18 – 23 4.00

24 – 29 4.20

> 30 4.75

SFCC Gerontology 110 / College Success 106

Mean 4.67 Gender: Female 4.67

College year: Freshman 4.00, Sophomore 5.00

Age: 24 – 29 4.67

> 30 4.67

SFCC English 98 / English 94, 96

Mean 3.72 Gender: Female 3.75, Male 3.70

College year: Freshman 3.65

Age: 18 – 23 3.50

24 – 29 4.00

> 30 5.00

Question #7 Compared to stand-alone classes you have taken, to what extent in these paired or linked classes have you felt a sense of community?

NIC Speech 233 / Sociology 220

Mean 4.68 Gender: Female 4.69, Male 4.88

College year: Freshman 4.76, Sophomore 4.64

Age: 18 – 23 4.63

24 – 29 4.89

> 30 4.50

NIC Psychology 101 / English 101

Mean 4.50 Gender: Female 4.63, Male 4.67

College year: Freshman 4.44, Sophomore 4.67

Age: 18 – 23 4.56

24 – 29 3.00

> 30 4.75

NIC History 111 / English 101

Mean 4.60 Gender: Female 4.75, Male 4.00

College year: Freshman 4.60

Age: 18 –23 4.60

SFCC Psychology 101 / English 101, 201 / English 131

Mean 3.50 Gender: Female 3.37, Male 3.73

College year: Freshman 3.45, Sophomore 5.00

Age: < 18 4.00

18 – 23 3.38

SFCC English 101, 201 / English 295

Mean 4.22 Gender: Female 4.25, Male 4.00

College year: Freshman 4.23, Sophomore 4.25

Age: 18 – 23 4.17

24 – 29 4.50

SFCC Psychology 101 / Psychology 181, 241

Mean 3.83 Gender: Female 3.92, Male 3.67

College year: Freshman 3.36, Sophomore 4.57

Age: 18 – 23 3.62

24 – 29 4.33

> 30 4.50

SFCC Engineering 110 / English 205

Mean 3.95 Gender: Female 4.00, Male 3.93

College year: Freshman 4.30, Sophomore 3.56

Age: 18 – 23 4.21

24 – 29 3.00

>30 3.33

SFCC College Success 106 / English 99

Mean 4.25 Gender: Female 4.20, Male 4.50

College year: Freshman 4.25, Sophomore 4.00

Age: 18 – 23 4.11

> 30 4.00

SFCC ASL Interpreter Training 106 / English 151

Mean 4.50 Gender: Female 4.56, Male 4.00

College year: Freshman 4.43, Sophomore 5.00

Age: 18 – 23 4.00

24 – 29 4.20

> 30 5.00

SFCC Gerontology 110 / College Success

Mean 4.86 Gender: Female 4.80

College year: Freshman 5.00, Sophomore 4.50

Age: 24 – 29 4.75

> 30 5.00

SFCC English 98 / English 94, 96

Mean 3.44 Gender: Female 3.50, Male 3.40

College year: Freshman 3.41

Age: 18 – 23 3.29

24 – 29 4.50

> 30 3.00

Question #8 To what extent did you feel encouraged to take intellectual risks in these learning community classes?

SFCC Psychology 101 / English 101, 201 / English 131

Mean 2.97 Gender: Female 3.00, Male 3.73

College year: Freshman 2.97, Sophomore 3.00

Age: < 18 2.86

18 – 23 3.00

SFCC English 101, 201 / English 295

Mean 4.00 Gender: Female 4.04, Male 3.67

College year: Freshman 4.00, Sophomore 4.00

Age: 18 – 23 3.96

24 – 29 4.50

SFCC Psychology 101 / Psychology 181, 241

Mean 3.61 Gender: Female 3.50, Male 3.83

College year: Freshman 3.36, Sophomore 4.00

Age: 18 – 23 3.46

24 – 29 3.67

> 30 4.50

SFCC Engineering 110 / English 205

Mean 3.16 Gender: Female 3.25, Male 3.13

College year: Freshman 3.10, Sophomore 3.22

Age: 18 – 23 3.07

24 – 29 3.50

> 30 3.33

SFCC College Success 106 / English 99

Mean 3.67 Gender. Female 4.00, Male 3.83

College year: Freshman 3.75, Sophomore 3.33

Age: 18 – 23 3.33

> 30 4.67

SFCC ASL Interpreter Training 106 / English 151

Mean 4.20 Gender: Female 4.22, Male 4.00

College year: Freshman 4.14, Sophomore 4.50

Age: 18 – 23 4.00

24 – 29 4.00

> 30 4.50

SFCC Gerontology 110 / College Success 106

Mean 4.57 Gender: Female 4.40

College year: Freshman 4.00, Sophomore 4.50

Age: 24 – 29 4.75

> 30 4.67

SFCC English 98 / English 94, 96

Mean 3.35 Gender: Female 3.38, Male 3.33

College year: Freshman 3.31

Age: 18 – 23 3.31

24 – 29 4.00

> 30 2.00

Question #9 To what extent did these learning community courses help you communicate effectively?

SFCC Psychology 101 / English 101, 201 / English 131

Mean 3.17 Gender: Female 3.17, Male 3.15

College year: Freshman 3.17, Sophomore 3.00

Age: < 18 3.50

18 – 23 3.10

SFCC English 101, 201 / English 295

Mean 4.00 Gender: Females 4.00, Males 4.00

College year: Freshman 3.95, Sophomore 4.50

Age: 18 – 23 3.96

24 – 29 5.00

SFCC Psychology 101 / Psychology 181, 241

Mean 3.72 Gender: Females 3.75, Males 3.67

College year: Freshman 3.54, Sophomore 4.0

Age: 18 – 23 3.69

24 – 29 3.67

> 30 4.00

SFCC Engineering 110 / English 205

Mean 3.63 Gender: Female 3.50, Male 3.67

College year: Freshman 3.30, Sophomore 4.00

Age: 18 – 23 3.50

24 – 29 4.50

> 30 3.67

SFCC College Success 106 / English 99

Mean 3.83 Gender: Female 4.20, Male 3.83

College year: Freshman 3.88, Sophomore 4.00

Age: 18 – 23 3.78

> 30 4.00

SFCC ASL Interpreter Training 106 / English 151

Mean 4.33 Gender: Female 4.37, Male 4.00

College year: Freshman 4.50, Sophomore 4.00

Age: 18 – 23 4.00

24 – 29 4.00

> 30 4.75

SFCC Gerontology 110 / College Success 106

Mean 4.71 Gender: Female 4.60

College year: Freshman 5.00, Sophomore 4.00

Age: 24 – 29 4.50

Age: > 30 5.00

SFCC English 98 / English 94, 96

Mean 4.06 Gender: Female 4.25, Male 3.90

College year: Freshman 4.00, Sophomore 4.00

Age: 18 – 23 3.86

24 – 29 4.50

> 30 5.00

Qualitative Analysis of Learning Community Interviews

There were 2,538 text units identified from the fourteen interview documents analyzed. After several coding revisions sixty themes were identified. Further code sorting by exclusion was conducted where themes that were not prevalent in more than four documents (29 percent) or failed to have more than ten text units involved were removed. Inclusion was conducted by combining themes that had significant overlap. The final number of identified themes was twenty-one (see Table 5 for themes and definitions).

Table 6 Themes

Theme	Definition	# Documents
Accountability	Students are responsible to peers for assignments, projects. Instructors are responsible to colleagues to be organized.	5
Administrative Support	Instructors are provided resources and encouragement from the administration.	7
Access to Instructors	Students experience easy and frequent access to their instructors.	8
Content Coverage	To teach the required amount of content to meet the learning outcomes of the course.	5
Difficult Scheduling	Problems with scheduling linked classes for times, classrooms, and student schedules.	5

Theme	Definition	# Documents
Flexibility	Instructors are able to modify their lessons, syllabi, and classroom rules to accommodate learning community.	8
Enjoyment	Learning and/or teaching are experienced as fun.	7
Grading	Student assessment in stand-alone and learning community classes.	5
Group Work	Collaborative learning often done in groups of three to five students very prevalent in learning communities.	7
Instructor Qualities	Characteristics of the instructors in both learning communities and in stand-alone courses.	5
Instructor Time Commitment	The amount of time instructors devoted to preparing and teaching in learning communities.	7
Interdisciplinary Connections	Students are able to understand the relationships between various subjects.	11
Learning Communities	Classes taught together in a block often with a coordinated curriculum and team-taught.	11
Learning Results	Any curricular design that enhances learning.	8
Peer Interaction	Student to student dialogue and teacher to teacher dialogue.	6
Personality Fit	Instructors in team teaching partnerships must have personalities that compliment each other.	6
Professional Development	Teaching opportunities that allow for rejuvenation, increased knowledge about content and pedagogy.	6
Sense of Community	An educational experience indicative of an environment characterized by sharing, caring, trusting, working together, and the making of friends.	14
Student Workload	The amount of student work in learning communities compared to stand-alone classes.	8
Team Teaching	Instructors teach at least two classes together, they may or may not attend each other's classes but there is a great deal of collaboration between them.	10
Withdrawal / Retention	Learning community classes may have an impact on whether students drop out or remain in school.	7

Six categories were identified for organizing the themes around the research questions of this phenomenological study. Those categories are used to report the results

of the interviews in the following qualitative write-up. All names of students and instructors are aliases.

Advantages for Students

Students and instructors at NIC and SFCC are in agreement that learning communities do offer advantages for student learning. Students in the four focus group interviews and instructors in the ten semi-structured one-on-one interviews shared the belief that learning communities provide a sense of community resulting in better learning opportunities compared to stand-alone classes of the same course. A number of themes emerged in the analysis of the interviews that will help explain this belief.

Access to Instructors: At NIC four of the six instructors spent considerable time in their learning community colleague's classroom. At SFCC all four of the instructors interviewed reported being present in all the classes taught in a learning community by their colleagues. This presence in the classroom was definitely noticed by the students interviewed at both institutions. The students shared that they appreciated the availability of the instructors and the feeling that one of the instructors was in a sense a student in their colleague's class. The students confided that this dramatically changed the dynamics of the class. As a student and a fellow learner the instructor was viewed as much more accessible. As NIC student Marilyn (12-8-1998) pointed out in a focus group interview, the instructor who was not teaching did act like another student: "He would sit down and ask questions. He would raise his hand. He would also offer other explanations or ask for explanations if he could not see it.".

The accessibility of the instructors was viewed as something which takes place both during and outside of the learning community classes. As Pete (3-14-2000) reported during a focus group interview at SFCC, the learning community instructors were also available during the breaks between the learning community classes, "I think because of that the professors are more accessible than in just a stand-alone class. Because of those ten minute break periods and things, well, they're not doing anything, and you can just approach them and talk to them about something."

The instructors that played the role of student occasionally saw themselves as modeling the good student role for the students, as Instructor BB (1-5-2000) revealed in the following:

"I'm a very good note-taker, and I don't find very many students today in that category. They aren't just bad note-takers; they aren't note-takers. So, I could say, 'Come on, you got to, you got to get this going', so, ah, sometimes it would frustrate me, but usually I am very, I'm a good girl about going to school."

Content Coverage: There was a noticeable difference between what the four instructors who teach English 101 Composition courses and what the six other instructors who do not teach that course had to say about content coverage. For the English composition teachers at NIC and SFCC the real advantage to teaching in a learning community is that the composition course is paired with a content course. This removed the burden of trying to find a foci point for writing assignments, making it easier for students to view their writing was relevant and necessary. This point did not go unnoticed by at least one NIC student identified as C (5-12-1999) commented:

> Especially I think that for English, that could go hand in hand with anything. You can write papers in Biology about worms or whatever, I don't know, and you can apply English skills and see how that works. Overall I think there's a lot of things you can find in common but specifically link English with anything, because I know in English, a lot of times I have to write papers about something that I really don't care about, but if I'm linking with a subject that I'm already studying, then I'm learning more.

Instructors and students agreed that learning communities allowed students to discuss the content of a course in greater depth. In cases where the courses that were paired were seen as very integrated the students expressed that being able to look at an issue from two different disciplinary perspectives really helped them more fully understand the issue.

The longer time blocks available to learning community students were also seen as beneficial to the coverage of content. NIC student E (5-12-1999) stated it this way,

> I think that with them being linked together that the one gives you like the basis, and the next one gives you more in depth, and since you're actually talking about two things that are similar, they're not the same, but they're pretty similar, it gives almost more time to go in depth more in the two classes than what you're getting in the singular class all by itself.

Enjoyment: All students of all four focus groups reported that they enjoyed the learning community experience. They enjoyed the camaraderie and the relationship they had with their peers and their instructors. They reported making friends in the learning

community much more than they had done in their stand-alone class experience. When students were asked if they would recommend learning communities to their friends, students in all four of the focus groups responded that they would recommend the experience. SFCC student Jack (3-14-2000) replied in this way, "Well, I would totally tell them to do it because out of every class I have taken, I've enjoyed this one by far more than any other one. I think I've gotten more out of it." SFCC student Pete (3-14-2000) responded similarly, "Definite yes, I've got more out of it too, interdisciplinary studies classes than I've got out of any other class, so I just feel that I've learned a lot more and I've enjoyed it." Pete and Jack were traditional students, but Jamie (3-14-2000), a nontraditional student, went beyond what Pete and Jack by stating the following: "I would also say yes. In fact I would go so far to say, if I could do all four years of my college in classes like this, I would, and absolutely it is a lot of work, but I enjoyed it."

Grading: Grading is an issue that is viewed by some of the interviewees as problematic. Some students found learning communities to be advantageous when it comes to grading over stand-alone classes. However what was clear in the interviews is that not all grading procedures in learning communities are the same. There appears to be a number of different ways to grade. The advantages were seen as being able to receive two grades for the same assignment. Instructor B (5-4-1998) at NIC advised that teachers in learning communities should try to make their assignments work for both classes:

> The other thing I would suggest is the more you can make your assignments common, the better you are too. If you try to keep your assignments totally separate, the more the students are going to feel overwhelmed. Particularly because the students don't conceptually separate out the classes all that well.

They have a little difficulty with that for some reason.

Group Work: Collaborative learning via the use of small groups was prevalent in most of the learning communities represented in the interviews. A few of the classes had at least one of the courses in the linkage taught predominantly via the lecture mode of delivery. With students spending more than just one class together, when small group learning was incorporated students expressed that they felt they had really gotten to know their group members well. Most, but not all, of the students reported very positive experiences associated with working in these small groups. As SFCC student Jim Morrison (3-14-2000) states, "in a learning community what really makes it helpful is the group work. Most of the big projects that we had due, the major projects we had due, we did as a group." Maria (3-14-2000), another SFCC student, commented that she was very proud of what her group had accomplished throughout the quarter.

Interdisciplinary Connections: All of the instructors interviewed agreed that learning community classes helped students make interdisciplinary connections better than stand-alone classes. The group focus interviewees indicated that students also found connections easier to make between disciplines in learning community classes than in stand-alone classes. The ability to make connections was seen by both teachers and students as an important part of a deeper kind of learning. The interdisciplinary connections that the learning community classes provided were not experienced as necessarily making the classes easier, but better. Pete (3-14-2000), an SFCC student, commented on the interdisciplinary approach in this fashion, "And it was pretty much exactly what I expected. I liked it so much better that way. I've tried taking stand-alone classes and I feel like I have more work with

the interdisciplinary studies classes. I felt there is a lot more work, but since everything kind of leans together, I get more out of the courses."

Some students at both institutions stated that not all courses should be paired or linked together. They also recognized that a great deal of instructor planning went into the planning of the paired courses where the interdisciplinary connections and integration of each of the course's content was obvious. A (5-12-1999), an NIC student, stated it this way concerning her experience in the linked learning community of Speech 233 Interpersonal Communication and Sociology 220 Marriage and the Family:

> The work they've done is quite a bit to schedule the work the material, to coincide with, I mean they could easily change it around, but since they've put so much thought and work into it, it's flowed really well together. They mesh well, because of how their classes build upon the other. And I think if you're going to do any linked class that needs to be true. They should be able to build upon each other and they should be able to mesh well.

The instructors at both institutions listed interdisciplinary connectedness as one of the main advantages for students. One SFCC instructor, AU (1-27-2000), compared learning community classes to stand-alone classes, stating the following:

> "Stand-alone classes tend to reinforce student tendencies to segment knowledge. And I think it is a cultural thing to place knowledge in these little boxes because it is conveniently manipulated, and if I'm teaching literature, than I don't have to be up on the subject. I think the greatest benefit of learning communities is that they break down the walls of those boxes in almost every

> way. Then you're no longer an isolated entity unto yourself. Your are having to deal with a wider community.

Learning Results: Instructors and students at both institutions concurred that learning was enhanced in a learning community setting. Neither instructors nor students made any claims that grades were better in learning communities than in stand-alone classes, however. There were several reasons given why learning communities yielded better learning results than did stand-alone courses. NIC student Renee (12-8-1998) attributed it to the fact that "what you learned in the first class was reiterated in a different way in the second class so that you were learning something in two different styles from two different people so that if you didn't catch it in one way you were catching it in another way."

Still other students, such as Hoarse (12-8-1998), another NIC student, cited the advantage to learning in the learning community classes over stand-alone classes as having to do with the group dynamics. He stated, "I believe that we as a class have such a close knit class that this was a very tight learning community and we all learned a lot from each other. And this has been probably the best class that I have ever taken at U. of I. or NIC."

NIC student E (5-12-1999) contended that one of the main factors to enhanced learning in the learning communities was because of the length of time which students spent studying a subject. The two courses together allowed for content to be repeated in each course, as E explains:

> I think that being in the two classes together, with them completely reiterating everything that the first one's taught and then how they go back and forth all the time. It's just imbedding it deeper in our mind, so it's almost going into the long-

term memory rather than the short-term that you get with a lot of single stand-alone classes. I take classes that I'll remember what I need to pass the class, and once the class is over it's pretty well gone into history. But this class here, it's been repeated so many times that it's going to stick for quite awhile."

NIC instructor B (5-4-1998) and several students commented that the interdisciplinary connections made for a better learning experience in the learning communities than in stand-alone classes. As B stated, "it connects the subject matter across the curriculum, and they see the connection, and I think it just makes a better learning experience for the students."

There was another aspect of learning that seemed to stand out as students compared their learning to the stand-alone versus the learning community experience. In the stand-alone courses some of the students felt lectured to and that their purpose in the class was to absorb the information presented by the instructor. In the learning communities the students commented that more was expected of them to construct knowledge. The group work often focused on group problem solving and application of content to projects. Instructor BB (1-5-2000) at SFCC explained this phenomenon by saying, I think it is about an epistemological question: how do people make their own knowledge? And I think it is wonderful to watch people do that."

Instructor C (5-4-1998) at NIC stated that he believes the students with learning community experience reap the benefits of what they have learned long after the learning

community has ended. He stated it in the following way, qualifying that he was talking about his linked Developmental Psychology class, not his linked Introduction to Psychology class:

> I think probably the thing that I will take away from the linked class, and this is the developmental class, is that if you have high expectations for students and if you can support those expectations, as we're able to do with the two of us working with students on research projects, community college students can do things that a lot of people really don't believe they can do. Our students are continually coming back. I hear from them more than once a year. They come back and tell D and me how much they have appreciated the impact we made upon their writing sophistication.

Peer interaction: Peer interaction was a theme occurring in two different contexts – student-to-student and instructor-to-instructor. It was experienced as an advantage to students in both of these contexts. The student-to-student interaction was viewed as benefiting both student learning and student friendships. Learning communities were reported by students to have a great deal more peer interaction than stand-alone classes. As SFCC Jim Morrison (3-14-2000) commented, "It was frustrating at times, but the trade-off was good, because what I got out of the class was, I think, a lot more than what I would have gotten out of just a stand-alone class, and the peer interaction was, you know, like, I'd say, sixty to seventy percent more than what it would be in a stand-alone class."

The peer interaction was reported occurring not just during class-time but between classes or during breaks as well. Jack (3-14-2000), an SFCC student in his early twenties, stated, "I'm a smoker and all the smokers tend to congregate outside. What is funny is that

all the conversation that goes on outside the class and in-between breaks is always about what was going on in the class, so I mean the ten minute breaks really don't stop the class; it just tends to branch off in new directions." Maria (3-14-2000), a woman in her early twenties and one of Jack's peers, commented that nonsmokers would often stay inside the class during breaks. She stated that the students "kept on talking about what was going on in the class. I think it kind of, maybe, some people are kind of shy and they don't want to talk to the whole group or raise their hand, but they, you know, can talk to their little own group that they have. You know. Talk and met and know those people, so it's helped."

The SFCC learning community formed by the coordinated studies classes focused on intercultural communication and global film was, according to all the eight students in one group focus interview, conducive to peer interaction that incorporated exactly what the students had been learning about their course. Jim Morrison (3-14-2000) explained:

> Then you broke down the feeling of the us and them type of nature that our society has, you know. We are very segregated even though the U.S. is supposed to be this big mixing pot. It's so segregated. And, I think within the class, you know, the subject that we are studying had a lot to do with it, but I think every-body has, you know, really tried to drop their stereotyping for at least those three hours that we were in class and work together and see each other just as humans. And I think that, like Jamie said earlier, ah, helped people to talk to one another that ordinarily wouldn't seek out conversations, you know, with each other.

The teacher-to-teacher peer interaction was seen as a benefit for students when

instructors would engage in dialogue modeling scholastic inquiry and interlocution. SFCC instructor AU (1-27-2000) stated "I think they do benefit from seeing me in dialogue with another professor, and so if something is going on and I turn to the other professor and say, okay, how are we going to do this." SFCC instructors AU and AO commented that such interaction between instructors allowed the students a chance to see inside of the practice of teaching.

Sense of Community: In all fourteen interviews, the one theme that was the most frequently occurring and the most emphasized was a sense of community. Students and instructors at both institutions were unanimous in stating that an obvious advantage for students in learning communities was a sense of community. The sense of community was lauded as helping students form meaningful relationships with peers and instructors resulting in better attendance and fewer withdrawals, more class participation, more support from peers and instructors, and a better learning environment. The following comment by NIC student A (5-12-1999) incorporates most of these benefits:

> There's such a big gap between high school, where most students come from, high school to college, to college. It's a huge transition. I think the linked classes kind of help out. Instead of being thrown into a room with strangers, you develop this relationship because you spend so much time with these people. It's not necessary that you have to like them, but you see them every day and it's more of a class and I've never been able to say that in another class.

One of the aspects missing from A's comments is the friendship portion of a sense of community. Most of the students did mention how much easier it was to make friends in a

learning community environment than in a stand-alone class. Jennifer (3-15-2000), an SFCC student, addresses the friendship issue and the difference between stand-alone and learning community classes in the following:

> The biggest thing for me was the fact that we had, like when they put us into groups, we did a lot of group work, and that, through that, like I made real friends. Like for instance, I made friends with this older lady named Jamie, and in my other classes, the classes that I have taken that wasn't normally, it wasn't this learning community, I'd just go into my class, sit there, do nothing, probably think about nothing, and really care? I didn't really care about with what other people thought about me and my grades. But because of it, I met Jamie and we talked and stuff like that. She motivated me, cause we are in a group. She motivated me to, like I need to, I need to get good grades, I need to get my stuff done because in this learning community I made friends that made me want to do well in my school work. So, that's the biggest thing for me.

The students in all four focus group interviews stated that the sense of community they experienced in the learning communities had not been their experience in stand-alone classes. Maria (3-14-2000), a SFCC student who identified herself as being from Mexico, stated that she could always contact one of her group members from her learning community if she had a question or if she was unable to make it to class. She stated that someone always

took notes for her and brought her up to date on what she missed. That was not the case for stand-alone classes, however, as she makes clear in talking about her stand alone class:

> You know, sometimes I don't even have time in my stand-alone class. I don't even have time to ask anybody else cause they have to rush to another class. And then, I like, oh, I missed. You have to sometimes try to run to find a teacher, because, and then you can't find them, because he's in another class or he's busy. Then, you have to work, you have to, you know, go home or, you know, or busy, you can't really afford to just take time.

Instructors commented that they see learning communities as providing students with a sense of community that translates into an important advantage for students at a community college. NIC instructor A (4-29-1998) stated, "The other advantage I think from the student's point of view is that I truly believe there is more camaraderie between and among the students and they develop much tighter relationships between and among one another in a linked class."

Student Workload: The results of the interviews on this theme show the most mixed responses. Some students reported that the learning community classes were a lot of work, but conceded that when compared to the same number of credits taken in stand-alone classes the workload may actually have been less. At SFCC Chris (3-15-2000), a woman in her early twenties who spoke with a Spanish accent, made this comparison:

> Yeah, I've been here for two quarters and I don't know, it's hard taking three or four classes, you know, all by themselves, separate, because, you know, your teachers don't really understand if you have like a major project, you know, both

> due on the same day cause you're a college student and you're supposed to be, you know, that's what you are supposed to do. You know, and this class, by taking it together, it's, I don't know, it, you know, everything just falls in place.

B (12-8-98), another woman in her early twenties at NIC, reflected that it was more work than a three credit semester class, but it appears she was comparing the whole learning community linkage, the six semester credits, to the three credit stand alone. She said "it is a little bit more than a normal three credit class. I mean it's definitely really easy to get six credits without much work. It's not really that much. But it's worth it." B's comments were not consistent with many of her other classmates who often argued that the learning community was more work. SFCC instructor AD (3-9-2000) suggested that perhaps in the learning community classes there is a higher level of expectation, not just of the instructors but also placed there by students themselves. He stated "I think that they really go the extra mile, because you find that they put in far more effort than what you would ever expect them to do. And again, it's usually with the challenge. Once they get excited about it, they do it and I don't think they are thinking about how much time they are putting into it."

NIC instructor A admitted that the students do a lot of work in the linked learning community classes but that much of their work was done for both classes at the same time.

Team Teaching: Students in all four focus groups found the team teaching they experienced in the learning communities to be very helpful. It is important to note that not all learning communities at both institutions had all the instructors of the learning community attending each others' classes, but that was the case for all four of these focus groups. NIC student C (5-12-1999), a woman in her early to mid-twenties, noted the

advantage of the team teaching approach when one of the courses in the linkage was a communications class.

> Another thing that's neat about it is that it's a communications class and so just by them working together and communicating together as teachers is kind of an example to us as how we work with other people because a lot of times with two instructors you might find that one might be a little more bossy or want to talk more. But they always exemplify how they're sharing the job, and they're both working together, and they're both providing time for each other to talk and I just think they've really done a good job in doing that and I think linked classes overall can provide that. In other classes, if it's not a linked class, you're basically seeing the teacher just dealing with students. But upon seeing a teacher deal with his own peers and other teachers and the two working together, it's neater to see that. To see them dealing with their own peers instead of 'I'm the teacher, listen to me.' Now they have an instructor they have to deal with too.

The team-teaching experience was also valued by students because they believed that it removed the chance an instructor might be presenting the information in a biased way. NIC student E (5-12-1999), a nontraditional male student, stated it in the following:

> I think also that having the two classes together we have most of the time both instructors in there so you don't get the feeling that this is one person's opinion that's gone through all this schooling. And now they're going to tell us how it actually is, when it's really their opinion. With both instructors in there, one might say this is how it's working back and forth. You might understand one

more than the other so that will help you learn also.

Jamie (3-14-2000), a nontraditional SFCC female student agreed, saying "What I liked is that I, we got three different points of views for the teachers. At the same time they were explaining certain things about different countries. One teacher commented on this while the other reinforced that with other things, and it kind of gave you more of a sense of understanding of that culture." Jamie's classmates in her focus group all nodded in agreement when she concluded by saying, "it's three different teachers, and you know the saying two's better than one, you know and this is three. You just learn, you know, a lot of stuff, and like you know sometimes you feel like your brain is overloaded with so much information, but you learn so much" (3-14-2000).

Withdrawal and Retention: Neither students nor instructors commented on seeing any studies or keeping records of the number of withdrawals in learning community classes compared to the number in stand-alone classes. That did not deter them from claiming that learning community classes resulted in fewer withdrawals and ultimately led to greater student retention. Some students did report that it was the learning community experience that did keep them from withdrawing and had it been a stand-alone class they probably would have withdrawn. Maria (3-14-2000) at SFCC explained how this worked.

> Oh, you keep on going to school. You try to keep on going to school – help each other. 'Oh, I;m just having a terrible time, my car broke down or, you know, my mom died or something. You know, things like that and helping each other. It's okay, you know, we stick with you, help you, hear the assign-ments. You need help, just call me up and we can go over it and the lesson.' Things like that.

Some students at SFCC did notice that the first few days students did drop the class. Several students commented that they thought this was the result of looking at all of the work involved. Jennifer (3-15-2000) believed that they acted prematurely, however. She stated, "If they can stay in the class long enough to adapt to the cultural environment that we as a class make. You know what I mean? Ah, I know, because I stayed in it long enough and I actually really made friends and I knew people and I was learning things, that I wanted to stay."

NIC Instructor C (5-4-1998) stated that unrealistic expectations might be another reason for the attrition rate being as high as it is in learning communities. He explained, "In the Intro class we get students who come in there with the idea that this is really going to make psychology a lot easier, and then when it doesn't, they become disappointed. And that probably accounts for a good deal of attrition."

Disadvantages For Students

Eight themes were identified that could be categorized as disadvantages for students. Not all students were in agreement on whether a given theme should be viewed as a disadvantage, but the themes occurred frequently enough in a negative context to place them in this category.

Content Coverage: Of all the twenty-one themes identified in the qualitative analysis, content coverage was reported as having the most disadvantages for students. The students at SFCC found content coverage to be more of a problem than did the students at NIC. The main source of the problem seems to be the nature of the coordinated studies program. In the coordinated studies learning community in which the students were

enrolled, students must sign up for Speech 220 Intercultural Communication and they must sign up for Humanities 223 International Cinema. For their third class within the triad they could choose English 101, English 201, Speech 120 Introduction to Speech , or Speech 285 Effective Speaking. The students had no complaints about content coverage of the first two required courses. It was within the choice of a third class where the problem seemed to be. Jack (3-14-2000) compared the content coverage in his stand-alone speech class to the content coverage and instruction his classmates received in the coordinated studies learning community in the following:

> I wasn't in speech but I took it last quarter and, hold on a second, I took speech last quarter, and I mean, I learned, I'd say ten times more in my speech class last quarter than I think the speech students did in this quarter. So I think with certain amounts of things, I think you are going to lose a little bit unless you concentrated more heavily. That I think speech got a little shuffled aside to the comp students.

Based on Jack's comments you would then assume that English composition instruction fared better. Jamie (3-14-2000), Jack's classmate who was enrolled in the English composition class, did not support the assumption, however. Jamie countered saying what follows:

> You know coming back into school, I tested and my highest score was in English testing, my assessment score, so I thought I was ready for 101, but because we didn't really spend a lot on that – it would just sort of tie in with our writing all the others things we learned, I really did feel like I was flying by the seat of my

> pants. I mean I had to look at my book and study it, and you know, I just hoped to God I was doing it right.

Both students who had enrolled in English composition or speech introduction or effective speaking classes felt they had not received the quality of instruction that they would have received in a stand-alone class, even though they still highly valued their learning community experience.

Difficult scheduling: The reason many students do not sign up for learning communities is because at least one hour of the block does not fit into their schedules. Another difficulty that occurs just as frequently is the situation where the student does not need at least one of the courses in the learning community to fulfill the program or general education requirements and consequently the student does not sign up. These were some of reasons Instructor E (5-4-1998) cited as contributing to the negatives for students taking, or not taking, learning community classes. He stated the problem as follows:

> Everything intrinsic to the linked classes is the reluctance of students to sign up for them. They are scheduled back to back, it takes a lot of the flexibility out of their class load. This affects some students simply by virtue of when other classes they need to take are offered, they are not able to take them. That's just built in and so there's nothing we can do about it. The other thing is that students are reluctant to try something new. And it's difficult to convince students this is something that will work to their advantage. I think that as we do more of it, or even if you were to do it with sophomore level classes, as a straight A student in level 205 or 102, I think as the students have been here longer, there is likely more readiness to get into that.

In the case of the students interviewed they had not found these problems to be obstacles for them, but of course the students who would be affected would never have signed up for the learning communities in the first place.

Some of the students at NIC did comment that the three-hour blocks were difficult to endure sometimes. Instructor B (5-4-1998) empathized with the students, stating "the room that we're in sometimes is kind of hot and miserable and that can make a negative impact because you're there for such a long time."

Grading and Group Work: These two themes are combined here because they are so overlapping when it comes to student disadvantages. None of the students interviewed had the situation where they would receive the same final grade for each class of the learning community. However, all of the students did have situations where the same assignment would be graded for more than one course in the learning community. Some students perceived joint grading of such assignments and projects as having both advantages and disadvantages. NIC student A (5-12-1999) explained it this way:

> I guess the only thing I could say is that if you wanted to slack off in one, you couldn't drop, like [instructor B's] class, you couldn't drop the one you were doing poorly in and continue on in the other. You'd have to stick them both out or you lose them both. And also a lot of the times the papers are connected. One paper will be graded by both instructors and if you fail to do one assignment, it's actually failing to do two assignments. It's a double whammy and it's that added pressure. But then you can always turn it on the flip-side where you only have one assignment for two classes and that makes it a

little easier than having to write two individual papers.

Grading was also a concern for students when it tied into doing collaborative or group work. The students at both NIC and SFCC were asked to do a number of collaborative projects. The problem of some students not doing their fair share posed grading fairness problems. At SFCC one focus group discussed some solutions about how they got around these problems, but it still left the pressure of making some tough decisions as Jim Morrison (3-14-2000), a nontraditional student, a father of two children and in what appears to be his mid-thirties, explained:

> In that sense, like learning from each other, and learning how to work with each other, and making tough decisions, and saying, you know, going back to the grades, what kind of grade do we want? Can we be realistic if we rely…I mean when you only have four people in your group and you have a whole festival to put on, and one person is not pulling one-fourth of the weight, you have to make a decision pretty early to say, we can't split that up a week ahead of time, we have split it up now if we are going to split up that extra work, so we have to make a decision now whether or not we can rely on them. If we can't rely on them….if we can't rely on them we have to throw them out.

SFCC instructor AD noted that a disadvantage of learning communities for students who wanted to get by with a minimum amount of effort is that is not possible in learning communities. The demands of the peers as well as the increased exposure to the instructors naturally expose the student out in the open more so, as AD (3-9-2000) stated it, "in terms of assessing and getting a more honest evaluation of how somebody is really doing, I think that

a student could slide by and maybe do better in the background in a stand-alone course and there is no where to hide in a learning community if it's operated correctly."

Interdisciplinary Connections: Even in the area of interdisciplinary connections not everything was viewed as a positive. The very fact the different disciplines are connected can lead for some student frustration as NIC's Instructor F (5-8-1998) explains:

> Many of the students enjoyed the idea that a writing class would be used to help them with their history. The classes became more of a continuation of the history class. And I think the students liked that more than anything. The papers were all academic in nature, and they have a purpose that way. The no side, I think is that some of the students for the same reason, they thought they were getting a double dose of history, and wondered if they were really learning English composition? I don't know.

Instructor Qualities: Student responses concerning their learning community instructors were all very positive. However, some students did point out that if the instructors of the linked courses did not possess flexibility or a good sense of collaborative teamwork that the learning experience in such an environment would be negative. At NIC student A (5-12-1999) made this comment: "with the wrong instructor, the opposite could happen. I've had some experiences with some instructors who are not as willing to work with you and I think that would make it all the worse."

Learning Results: Although nearly all student comments reflected a sense of deeper, more connected learning, there were a few negatives. The most frequently mentioned negative theme was a lack of content coverage that has already been addressed. Another

disadvantage that was mentioned is that the flexibility of some learning communities does create a schedule in flux. For students who prefer to know the expectations of a course for the whole quarter or semester the changing landscape of a learning community may prove frustrating, as Jim Morrison (3-14-2000) pointed out in one of the SFCC focus groups:

> I drive two hours a day, an hour here and an hour back home, and so for me the time that I get any extra free time other than my scheduled study time, I like to know what would be a useful way to spend that, and if I think that a project is coming up, then I am going to spend that little extra time studying for that. And with it shuffling all around, sometimes I spent time on things that I would have spent otherwise if I would have known.

Student Workload: Next to course content, student workload was a theme where there were a number of negative responses. The majority of students in the focus groups at NIC and SFCC responded that they felt the learning community classes were more work than stand-alone classes. It should be noted that there were some students at both institutions who disagreed with the majority opinion on this issue. NIC instructor B (5-4-1998) pointed out that "because we're altogether in the same classroom, for a period of time, sometimes they conceptually can't separate the two courses from each other and they start thinking that's this is a lot of work in these classes, and not truly thinking that it's also six credits."

An NIC student who identified himself as Hoarse (12-8-1998), reflecting the quality of his voice the day of the interview, shed some light on why the students in his class saw the learning community as more work than stand-alone classes. He stated that "individually the classes weren't more work than any other class, but because the due dates were the same for

everything that was more work, because you have to get two papers done by that day, and two whatevers done that day, so it was twice as many assignments due on the same day."

Frank (5-12-1999), a nontraditional NIC student, reported that he had to do more work for the six credits in the learning community than he had to for six credits of stand-alone classes. Despite Frank's experience of having to do more work in the learning community classes, he added that he did not complain about, "because every time I thought about going to him to ask him to lighten up, but then I'd think well wait a minute, he's putting in a lot of hours. He's the one who's got to evaluate this, and grade it, to do this and do that."

Jane (3-14-2000), an SFCC traditional student, agreed with most her classmates in her focus group that learning communities were more work but definitely worth it. Jane offered this advice to students who might contemplate signing up for a learning community: "I would say put in your two-week's notice at work, and tell your friends you'll call them in about three months."

Withdrawal and Retention: The responses to this theme varied depending on the focus group. All the focus groups agreed that once they were into the semester or quarter by two or three weeks there were very few withdrawals. The SFCC focus groups had witnessed an early attrition during the first two weeks. Some of the students explained this as a reaction to the workload before the students could fully appreciate the benefits of the learning community. Jennifer (3-15-2000) at SFCC explained it this way:

> But there was ten kids there for the first week and a half that weren't there for the rest of the quarter. And I think the reason why they did that is maybe because of personal reasons, maybe they just had an overload, and they were

> frightened of this overload of this homework that each of these or that was just thrown at us in the beginning. I think they freaked out a little bit but, if they would have stayed, if they could have toughed it out just a little bit longer, than I think that no one would have dropped out. But if they just could have stayed a little bit longer because I do think it makes you want to be there and learn things because it's not, it's a good, it's a healthy environment to be in I think.

NIC Instructor D (5-6-1998) stated that the only disadvantage for students she could think of in learning communities would be that "if someone wants to drop, that's a real disadvantage, because they have six credits, and if they want to drop one class they really should drop the other, and that means often times they can go from full-time to part-time."

Advantages for Instructors

Instructors had very positive comments about learning communities in the interviews. Ten themes were mentioned frequently. All instructors agreed that the advantages to teaching in a learning community far outweighed the disadvantages.

Accountability: Although being accountable to another instructor may be viewed as a disadvantage by some instructors, other instructors, like SFCC's AO (2-15-2000), have found it to be advantageous. This accountability forces one to be more prepared and responsible, which are good attributes to have, AO explained, and allowed for "feedback from the other person too. Like places where you might improve or a place that seems to work well, you have on a daily basis that kind of, ah, correspondence and give and take."

Content Coverage: A real advantage that NIC instructors A, D, and F, and SFCC instructors AU and BB identified was the ability to focus a skills course on a particular body of content. All of these instructors had one thing in common, they either taught speech or English composition classes. In the learning communities they had been able to focus their classes with the content of the course with which they had linked. Instructor D (5-6-1998) explained this in the following:

> It's actually hard to remember, but I think the reason I wanted to link, certainly the English 101, is because essay writing is a somewhat contentless course, it's more process oriented and it's a difficult class to teach, and I thought Psychology would have some interesting topics that could be developed in essay form in English 101. So I think that's why I wanted to have this linkage.

As instructor D indicated, linking with a content oriented course aids the instructor by focusing the students on a specific content. There are other benefits though that skill oriented course instructors derive from such linkages. As D commented, teaching English 101 is a difficult class to teach. Some of the instructors pointed out that teaching this course is not as invigorating as teaching other courses. Another reason for linking with a content course is it allows the instructor to escape the drudgery of teaching purely composition. Part-time faculty members teach the majority of English 101 courses at SFCC. Instructor BB (1-5-2000) pointed out some of the advantages for them to teach in a linked course in the following:

> I mean, okay, here's a real good reason for teaching in a learning community if

> you are a part-time English teacher. If all you get to teach is Comp 101, what the hell, why is that? I mean it's a good thing to teach Comp101, it's a good thing to get better at it, but then how many times does it take? So learning communities are a way to stay intellectually engaged. It's also a way to branch out of the English ghetto, and those are positive things.

Flexibility: Teaching in a learning community provides instructors with more flexibility was a theme reiterated time and again in the interviews. Another part of this theme that overlaps with the theme of necessary instructor qualities is that the successful learning community instructor must be flexible. With flexibility brings several advantages, one being that it allows for creative manipulation of schedules as NIC's instructor B (5-4-1998) explains:

> A third advantage is that it allows a little bit of flexibility in our schedules that we did not have before. Both A and I have some assignments, some activities, that we used to have to spread out over two class periods. Now what we can do is schedule ahead of time. A can take both periods the day he needs to do his big activity, and I can take both periods the day I need to do my big activities, and it helps because we don't break up an activity and the continuity is maintained.

The other form of flexibility addressed by the instructors was the ability to modify one's stand-alone class to fit the learning community model. Such flexibility was seen as

both a challenge and yet as a positive, as SFCC's instructor BB (1-5-2000) explained how this worked with a philosophy instructor with whom she had taught in a learning community:

> He did his three normal philosophers, and I said, this isn't working because it just, you know, I get to help you grade the papers and that's not exactly all that I had in mind. So the next time he picked the Republic which he thought would hit every question he was interested in and there were three others that he did. The three other books he had chosen the time before, and did two novels so that it plugged into the Republic. Ah, Hand-Maid's Tale plugged into the political arrangement and the Mary Gordon's, what's the name of it, I love it, Final Payments plugged into the body so that...so that we had the literature that was asking the questions about the philosophy. So that the second time we both read drafts. Not just me, so that, when you have a relationship that is strong enough and enjoys each other well enough, you can change. And it's worth it and it's fun and that's a positive. I mean what starts as a negative turns into a positive.

Enjoyment: Nine out of ten of the instructors indicated that they experienced the learning community experience as enjoyable. The reason for the enjoyment crosses over to the other themes, varying from professional development and rejuvenation to the sense of community one felt with one's colleagues and students. The enjoyment also stemmed from experiencing one's students making connections and reflecting more deeply about the content of the disciplines connected.

Several of the instructors commented on how much they enjoyed learning about a discipline they knew little about. BB, an English instructor at SFCC, discovered that the discipline that she had been much too frightened to take as an undergraduate was not available to her and linking with the discipline allowed her an experience that she found was exciting and enjoyable.

Interdisciplinary Connections: The advantage to instructors concerning interdisciplinary connections was stated quite simply as that of making their jobs easier. Students were able to readily see the connections between disciplines thereby making it easier for instructors to establish motivation and relevance. As instructor D (5-6-1998) at NIC noted, students

> may be less likely to question why they're doing a particular thing. Sometimes they'll say, well how does this link to Psychology, and I have some readings I have them do and we discuss it, and sometimes I ask them, why did I give you this reading, and how does this tie in with what you're talking about in Psychology? And they can usually respond to that. So I do think it just gives more of a focus to an English 101 class.

Learning Results: When instructors addressed the question about what they had gained from the learning community teaching experience, many of them could not divorce themselves from learning advantages their students had gained. As NIC Instructor B (5-4-1998) described the experience, "I've learned from an instructional standpoint that it is a great idea because it does intensify the learning opportunities."

The learning opportunities for students are not the only advantage commented upon by the instructors concerning the learning results theme. There was also the instructor's own enhanced learning experience that some of them noted in the learning community teaching experience. The teacher-as-student concept was explained by NIC's English instructor F (5-8-1998) in the following: "I got to become a student because I enjoy reading history, so I would read right along with the students, and I would get to discuss right along with the students. I learned I still like the idea that students learn better when their writing is real."

For some of the instructors, like NIC's Instructors D and F and SFCC's Instructors AU and BB, the learning community curriculum allowed for an opportunity to focus on primary texts instead of textbooks. This was viewed as an advantage for both students and instructors, as BB (1-5-2000) commented in the following:

> I think a second thing as a teacher that's wonderful, I think it's not always in other disciplines, although it is more so in English is that you deal with primary sources instead of textbooks. I think that textbooks are sort of killing documents. They are designed to, you would think they are designed to, be dull. Ah, the notion that students can, I mean Hume is hard to read and Descartes worse. But you can do it if you have some strategies for getting into it, and so dealing with the real big thinkers of the tradition are an important thing to do. I think those are the things that I would identify as teaching advantages.

Peer Interaction: All ten of the instructors interviewed believed peer interaction to be a big advantage to teaching in a learning community. The more the instructors of a particular learning community modified their lessons and syllabi the more the peer

interaction was valued. For instance SFCC Instructor AO, in his paired course with Instructor BA, modified his lesson plans and his teaching style to more closely coincide with that of BA's. AO (2-15-2000) had this to say about peer interaction: "It's an interesting thing that we are kind of isolated in this community that we are a part of. And this forming learning communities as you do in coordinated studies just breaks down all that, you know, at all levels, and I think it is healthy. It is good."

The campus isolation that Instructor AO spoke of is partly, as SFCC's Instructor AD (3-9-2000) explained it, the result of the traditional departmentalized college system. It is learning communities that allows those traditional barriers to be overcome and it ties the campus more together which AD sees as a big advantage for instructors. He stated about learning communities, "I think they are very good for the campus because, again, you get to work with people from all across campus and develop, you know, a sense of who they are rather than seeing them once a term at a general faculty meeting or at orientation in the fall. You get to meet with the people."

Personality Fit: All ten of the instructors stressed personality fit of instructors as being a crucial consideration when planning a learning community. Six of the instructors interviewed reported having only positive experiences with peer interaction in terms of who they had teamed with in teaching learning communities. The advantages to instructors that have a good personality fit are that they form a collaborative team that may offers to the students the best of both instructors. The instructors enjoy the benefit of each other's feedback and they learn from each other. However, such advantages cannot be taken for granted as SFCC instructor AU (1-27-2000) made clear:

I also think that it's difficult working with faculty egos. I think we're

> enormously egotistical people teaching in this profession. I think we're all on this amazing power trip. And so, having to negotiate that with another person. Having to have them make decisions that I, I wouldn't necessarily make, can be very taxing and very energy giving. Um, basically, just, I think that most of us were raised in the traditional system that believes the teacher is God. And you shut your door and that's your classroom, and you can do whatever you want in your classroom. And opening that door and allowing a community inside of it is really challenging for me as an instructor. I think it is enormously good for me. But it's something, you know, like eating your vegetables sometimes.

Professional Development: Learning about another discipline was experienced as one of the most important advantages of instructors according to several of the instructors. As NIC's B (5-8-1998) expressed it, "It just broadens the teacher's horizons and abilities because you are actually getting some pretty in-depth information and a look at another discipline. So I would say a very big advantage is the broadening of your own knowledge base."

Another advantage mentioned by most of the instructors was the ability afforded in the learning communities of observing another instructor teach. The growth in pedagogical knowledge was addressed by SFCC's AD (3-9-2000) when he stated, "you get a lot of faculty development by talking to other people. You get to watch other people, and that's very humiliating at times and humbling to see when somebody really does excel at the lecture

mode or they excel with working one-on-one with students or improved or whatever." The observation of another teacher is built into the learning community approach and allows for what some instructors referred to as reflection on instruction. NIC Instructor B (5-4-1998) explained this reflection on instruction in the following:

> I have also adapted and changed a little bit of my teaching style because I'm always looking at another teacher and that teacher is always looking at me, in terms of having a pretty consistent peer review in the class. And so that has always made me conscious of what I'm doing and how I'm doing it. Maybe you could say I've learned to reflect a little more perhaps on my own teaching, although I have to admit I do that anyway a tremendous amount.

Rejuvenation was part of professional development that several of the instructors mentioned. This was definitely true in the comments of the composition instructors. AD (3-9-2000), who teaches music at SFCC, also found rejuvenation to be an important advantage of learning communities. He compared rejuvenation found in learning community teaching with that of teaching stand-alone classes in the following:

> Now again, one that sure has kept me going these last ten years that I've been doing it has been just stagnation, you know, I was recently returned from a sabbatical in a summer where I finished my Ph.D. and so wanted to do some creative things. But in the stand-alone classes you don't always have the opportunity to explore different avenues. You have a pretty set syllabus that you have to cover, and you cover, I think, in a very shallow way.

Team Teaching: All of the instructors saw themselves as doing some team teaching in the learning community. For those instructors that saw themselves as working together as teams a great deal there was a commiserate amount of positive comments about the advantages in the learning community experience. NIC's instructors A and B, who formed a teaching team, both commented that they performed better as a team. Instructor A (4-29-98) explained this in the following:

> So from an intellectual standpoint and from a teaching standpoint, it is an incredibly rewarding part of the teaching process. Clearly that is an advantage to me but I really think team teaching offers that intellectual stimulation that I haven't found sitting in my office by myself, creating a lesson plan as to what I'm going to do and how I'm going to do it. The discussions that we've often had sitting in one another's offices, as to how we're going to approach a situation, and what we're going to do, those management kinds of things, is a wonderful thing, because it talks about teaching, it talks about good teaching, and how and why we approach things in different ways.

Disadvantages for Instructors

Six themes were identified that belong in this category. Despite the fact that most comments were very supporting of learning communities the negatives that did get mentioned fell within one of these six themes.

Accountability: The fact that a peer is always watching you made some instructors comment that they felt more accountable. SFCC's instructor AU (1-27-2000) phrased it this

way: "I have to be more on top of my game. I'm more accountable. And of course it's obviously an advantage as far as student learning, but as far as teachers, um, there are days, you know, that I wouldn't necessarily have to be accountable but I'd have to be accountable in the paired course than I would any other time."

Administrative Support: There was a very significant difference in the amount of administrative support NIC instructors and SFCC instructors reported receiving. At NIC four of the six instructors interviewed reported little to no support from the NIC administration. NIC instructor E (5-1-1998) pointed out that time must be made for instructors to meet, plan, and coordinate the linked classes. E stated that "it's something that could be abetted and the problem could be alleviated if the college again was willing to provide support and release time so that instructors could organize these activities." The four instructors indicated that the administration had not been able to provide the support, however, except for one or two administrators offering words of encouragement. NIC instructor B commented that the biggest negative to him is that he and his teaching partner, instructor A, did not get paid for doing two courses even though the both attend each other's classes and put in even more preparation time than they would for two classes. Instructor B stated that the time he and instructor A spend in each other's offices and classrooms is viewed as volunteer time. He elaborated by saying "There is no incentive to be in a linked course and there's no recognition for such anywhere" (5-4-98). When asked why he was involved in it he responded that the only advantage he and instructor A had was

> that little warm fuzzy feeling that is pedagogically sound. Instructor A and I both are not going to quit over it, but on the same token I have a hunch that's

> why a lot of people don't. Everybody has a full plate here, why put on a little extra when there doesn't seem to be any recognition that this extra effort means anything. (5-4-98)

Content Coverage: Although none of the instructors commented that they believed it had happened to them, three instructors did comment that some instructors feared their content would not be sufficiently covered in a learning community. SFCC instructor AD (3-9-2000) explained it in the following:

> Trying to make sure that your material doesn't get short-shrift and pushed in the back. So there can be some trouble and fortunately I've not been involved in one of those that had things gone totally awry. But I've heard of somewhere that it's been, you know, people are so guarded with their syllabus, they won't give up and then it becomes kind of a turf war to find out how we are going to present this material.

Grading: The disadvantage for teachers is that some students, it was pointed out, may take the opportunity in playing one teacher against the other, especially on assignments that are jointly graded. To avoid such a scenario from happening, according to NIC instructor B, you must design and clearly communicate rules that let the students know each of the instructors is independently responsible for the grades in that specific class.

Instructor Time Commitment: All ten of the instructors interviewed concurred that teaching in a learning community is a tremendous time commitment. They were all in agreement that it takes more time than teaching two stand-alone classes. All the instructors

stressed the importance of attending the class with which their courses were linked. Several instructors even mentioned the importance of attending the instructor's class with whom they were going to link prior to the actual linkage. SFCC instructor AO (2-15-2000) stated that "it's a huge undertaking. It's huge! It's lots bigger than doing a class by itself, and so a person needs, you know, to take that into account." AO elaborated with the following statement:

> It's just going to take more time. You are going to be in the constant process of preparation in a certain sense. Now it doesn't have to be grilling, but you just have to fit it in and get used to it. You know, it doesn't necessarily always have to take a lot of time, but it's just a fact that it's going to improve the smoothness and the integration, which is all that we are trying to do. You are just going to be living with these people, you know. You can't go back to your office and, ah, and then show up the next day, you know, like you're the only one in a stand-alone class. You are going to be camping with these people.

The SFCC instructors' comments did not reflect the same degree of the overwhelming time commitment as did the NIC instructors. The NIC instructors explained how they did not receive release time for developing learning communities nor did they receive a lessened workload even though they were team teaching in each other's classes. Because of that, NIC instructor D (5-6-1998) commented that the ten-year linkage she has been involved in is working, "but it definitely has to be something that you're interested in doing." She did mention an important caveat that she is married to instructor C, the instructor with whom her course is linked.

Personality fit: Alias names will not be used in discussing this theme for the purposes of not causing harm to the instructors who participated in this study. Four of the instructors recounted learning community teaching partners that failed to be good personality fits for them. The reasons for the lack of fit experiences were said to be pedagogical differences, power struggles, or simply character nuances the instructor found annoying in the other instructor. As one instructor stated, "There's also opportunities for disliking somebody more intensely as well. And that happens, because we are all different personalities and so in the past we've had the development of some negative relationships because they have more time and more contact."

The following experience exemplifies the problem of how the other instructor relates with students:

> I suppose personality irritations or something like that would be disadvantages. I mean I would like [the other instructor] to somehow establish himself in the midst of the students instead of the obvious expert. And, I don't know how that could be, how to do that.

The power struggle difficulty in getting personalities to fit was described by one instructor as being an issue involving a part-time faculty member working with a full-time instructor. The full-time instructor reported that the learning experience in that instance was not what subsequent experiences had been because of "authority issues, and you've got this weird kind of who gets to be the boss kind of things happening, and so that was strange. And so, I think a lot of things built upon it to make it a kind of bad experience."

Advantages to Institutions

Although neither students nor teachers were specifically asked about the effects of learning communities on institutions, several themes emerged that were placed in this category.

Flexibility: The flexibility theme not only was found in comments about benefits to students and faculty but also concerning advantages to institutions as a whole. The flexibility created by learning communities was reported as allowing institutions the flexibility to combine courses from different disciplines that provided new learning opportunities for students. Learning communities were also viewed as creating the flexibility to change curriculum and the method of teaching delivery. The institutional flexibility gained from learning communities came as somewhat of a surprise to SFCC's instructor AD (3-9-2000) when he compared his community college teaching experience to that of four year institutions. He explained this in the following:

> I just attended a session over in Seattle. This is starting to be very prevalent in four-year schools finally. They're getting on board. And so that's what was quite an eye-opener for me. I thought, boy, when we started here, we must be years behind the four-year institutions. But then when I would talk to friends at different schools around the country, they'd say, "Gosh, that's kind of neat." It would be nice if we could get the people from the English department to talk with the philosophy department, to talk to the, you know, the fine arts department, whatever. And, ah, so I think that the two-year schools have a lot more flexibility and they've really been on the cutting edge of doing this, and it's becoming a national movement.

Learning Results: When learning communities result in improved learning the advantages are reaped by both students and institutions. The learning results theme was identified in many of the instructors' comments. The instructors' answers to the interview questions revealed that instructors felt the college benefited from the learning communities from the depth of learning that occurred. There were not any instructors at NIC or SFCC who advocated that the whole curriculum be changed over to learning communities for the sake of better learning results. The traditional segmented approach of having all the disciplines distinctly separated was doing a disservice to general education as some instructors, such as NIC's instructor A, pointed out. As A (4-29-98) explained it,

> I think we have to create the environment, to make general education, to make those linkages, as much as possible. I think the teachers will respond. The educational administration and the system needs to create the environment where that overlap happens and where the interchange occurs as opposed to just going, "Well I teach this component, I teach that component, and I teach that other component," and somehow magically the students are going to figure that out.

SFCC's instructor AD (3-9-2000) agreed that breaking away from the mold of traditionally divided disciplines taught only in the stand-alone format was an important directional move for the institution. He argued it in the following:

> I think when you look at it holistically, I think it pays off. And so all forms of delivery are not going to be the same. So I think there is some real benefit

> to have this, because all too often I think educational systems are worrying about numbers out and to make everything sterile and homogenized, and that's not what it's going to be about. I think there's some that would aptly be delivered in maybe a more efficient way. But for this kind of learning, I think they need to invest and continue. I am hoping that they continue here.

SFCC instructor AO (1-26-00) explained that having both stand-alone courses and learning community courses are important because it allows instructors to see the differences and some modes of delivery work better for some students than others. He stated "I wouldn't totally shift over. Like say at Evergreen, for example, where all their teaching is in a learning community." AO was referring to Evergreen State College in Washington State. He said he preferred teaching some of the courses in his discipline of psychology in the stand-alone version to give him more control over the delivery of the content. In other courses of his discipline AO believed that the team-teaching and constant reflection of his own teaching in learning communities led to learning results for himself and for the whole college. He summarized the learning community experience at his community college this way:

> One of the first things that, that when you are teaching within your own discipline, it has lots of connections in lots of other places, and a lot of times students don't realize that. They don't know where they are going, they are taking intro classes. This is a community college, and there's wonderful connections with everything. And so, and especially some of us have got interests and shared, you know, interests. It's an opportunity to talk about

> the psychology of art, to talk about communications, and other things in the context of those other courses, with other resources, with other people, and so on. It just opens up the whole educational experience, I think. To the students, especially, but of course, to the faculty too. I mean it's, it's the way it should be.

NIC's instructor C (5-4-98) asked the question of whether he thought linked classes were the answer for all students and teachers. He answered his own question, saying not any more than the collaborative learning style or the lecture style. He explained that "For some students it's going to work well and for some students it's going to not work so well. And one of the things you can't do is beat yourself up over it. You take the rewards where you can. And it will work with some students, but other students it's not. That's the way everything seems to be in education."

Professional Development: All four of the SFCC instructors indicated that they felt the professional development gained from teaching in learning communities was actually a cost effective investment for their college compared to other means of professional development. AD (1-13-00) recounted an experience when he was serving on the Sabbatical Leave Committee "when budgets were really tight and we weren't letting but a handful of people go, and rather than for a full year sabbatical, but for one term only." AD said that the learning community opportunity helped fulfill the need the paucity of sabbatical leaves had created.

AO (1-26-00) concurred with AD that the institution did need to support learning communities as an effective means of professional development. AO recounted his

experience as a member of the Faculty Development Committee and their attempts to find a way for "faculty people to get into each other's courses. Have everybody take someone else's course." For AO learning communities provided this answer.

Sense of Community: Several of the instructors expressed the sentiment that the institution as a whole gains when the barriers come down, and learning communities were viewed as a way of lowering the barriers. Barriers in the context of the interviews were most often implied to be barriers between the disciplines. However, other barriers were mentioned, specifically one having to do with diversity issues. Learning communities were seen as a way of breaking down the barriers of race, gender, and age. The students pointed this out in all four of the focus group interviews, as did SFCC instructor AD (1-13-00) in the following: "I thing there's another real plus is that you get people of different age groups, obviously very diverse economic backgrounds and so forth, and you get them working together and I think it breaks down a lot of barriers in terms of preconceptions."

Withdrawal and Retention: Students and instructors at both institutions said that they believed fewer students withdrew from learning community courses than stand-alone courses. Institutions worried about attrition rates, several instructors implied, would do well to consider learning communities. SFCC instructor AO (1-26-00) confides the source of his opinion in the following when he responds to the question of whether learning communities help retain students:

> I think that , you know, a good number, I wouldn't know what proportion, who take coordinated studies courses stay with it. That's what I hear. You often find somebody in your coordinated studies courses who is taking another coordinated studies course, and they seem to like that. It's anecdotal. I wouldn't have any idea

of what the actual numbers are of students who stay in college because of coordinated studies courses.

Disadvantages for Institutions

There comments about learning communities having negative effects on the community colleges being studied were rare with only two themes being identified.

Difficult Scheduling: Several different problems were identified by instructors and students concerning the scheduling of learning communities. The most frequently occurring comment was about the problem of getting students enrolled properly. NIC's instructor D (5-6-98) pointed out that after ten years of teaching the linked courses "we still end up at the beginning of the semester with one or two students who are assigned to one class and not the other. And we've had all kinds of methods we used to try to avoid that and there's still no fool-proof way." NIC students (12-8-98) commented similarly to D that they had observed at least one student in the linked classes who had registered for only one of the courses despite the fact that supposedly the computer blocked that from happening.

Another scheduling problem reported had to do with students who did not particularly want to be in a learning community but it was the only way they could enroll in a class when all the stand-alone sections fully enrolled. Jack, an SFCC student (3-14-00) stated he had enrolled in the learning because it "was the only way I could get into a 101 English class on a scholarship. Every time I tried for four quarters now, and everything is full."

Instructor Time Commitment: A major disadvantage pointed out by instructors is the tremendous time commitment required to teach in a learning community. The

institutional disadvantages are the drain it puts on the faculty labor pool. As Frank (12-8-00) a nontraditional NIC student, stated the situation in the following:

> I think one peculiarity is that it puts quite a bit more of a demand on the instructor and you can't just put any typically reasonably competent instructor into that format, I don't think. I think that to be taught by two instructors, they're going to have to be unusually highly motivated and skilled in orchestrating that kind of thing and so if you can find them, it's well worth it of course, but it does require that.

CHAPTER FIVE

CONCLUSIONS

General Discussion of Results

The results from the final grade roster analysis at North Idaho College (NIC) and Spokane Falls Community College (SFCC) surprised me, both as a researcher and as a dean of instruction and former faculty member. After a decade of hearing the anecdotal accounts of the enhanced learning opportunities, the increased student retention, and the sense of community attributed to learning communities, it seemed clear the hypothesis that learning community courses would produce better learning results than stand-alone courses. Although it is debatable that grades are a good indicator of actual learning, at most institutions such as NIC and SFCC, they are the indicators most available and accepted. The result that learning community classes are not significantly better concerning final grades, and in thirty-six percent of the cases are significantly worse than stand-alone classes, was a result I was not expecting. Furthermore, the fact that there were more withdrawals in learning community classes than in stand-alone classes was not expected.

Like Delta College found in the FIPSE National Learning Community Dissemination Project, the results of this study do not comprise overwhelming evidence supporting the notion all community colleges should immediately change the entire curriculum to mirror learning communities (Fogarty, et. al, 1999). These results do stand in contrast as an external contradiction to most of the findings in the FIPSE Project and in the research of Chesebro, Green, Mino, Snider & Venable (1999) and Tinto, Goodsell Love, & Russo (1994). This study also suffers from an inward contradiction between the results of the

quantitative versus that of the qualitative findings. Whereas learning communities suffered more withdrawals and failed to show a significant difference in final grades in sixty-four percent of the comparisons and actually were significantly lower than stand-alone courses in thirty-six percent, the student evaluations, surveys and the interviews qualitatively showed the learning community classes had some real advantages to learning, student retention, and faculty development over stand-alone courses. The objective of this chapter is an attempt to explain both the external and the internal contradictions and how those conclusions can be applied to the general discussion of learning communities.

External Contradictions

The criterion used for determining which courses should be chosen to form learning communities, whether they were paired, linked, or in the form of coordinated studies, was not well established or altogether missing at NIC and SFCC. During the course of this study between two to three learning community options were offered per semester at NIC compared to between eight and thirteen at SFCC per quarter. Some of these courses that were paired or linked could arguably be said to have obvious interdisciplinary connections whereas other linkages were more problematic. Some linkages were little more than two stand-alone courses linked together through block scheduling with little revision done to one or both classes to integrate the curriculum and the assignments. At NIC there was a great deal of variation between how much time the team teacher spent in the other person's class. At SFCC there were also learning communities where at least one of the teachers were adjunct. Some of the teachers at both NIC and SFCC had never had any specific learning community teacher training. These variables stand in contrast to some of the institutions that reported positive results in the FIPSE study where only a few linked and coordinated study

courses were offered, instructors were all trained, and a concerted effort was made to make sure the curriculum of the linked courses were fully integrated. In must be noted that some of the courses at NIC and SFCC did possess all of these characteristics as well.

A notable difference in this study when compared to others is that in the comparative analysis between stand-alone and learning community classes the instructor variable was controlled. Only stand-alone and learning community classes that were taught by the same instructor were compared. In the interviews with the NIC instructors A, B, and C and SFCC instructor AD there was the admission that the academic rigor was actually higher in the learning community course. Students in all four focus group interviews reported this being the case. It is not known to what extent this variable was controlled in the other studies, however if it were not controlled it would account for a significant difference in the findings.

Scheduling at NIC and SFCC is similar when it comes to registering for stand-alone and learning community courses. At both institutions courses that have numerous sections, such as English 101 Composition, stand-alone classes reach full enrollments before the learning community sections. As a result, many students who register late who want to take English 101 have no option than to take the course in a learning community. Although the data I relate here is only anecdotal, many instructors are convinced that students who enroll late are often students who end up either withdrawing from or failing the class. With learning community classes having an inordinate amount of late enrollees this variable alone could significantly skew the results. Attempts at trying to control this variable would result in more reliable results but unfortunately would have little or no application to the actual reality of NIC or SFCC, and perhaps community colleges taken in general. Due to the difficulties in scheduling students who work, the majority of them over twenty hours per

week and who commute to campus, the chances that learning community classes will enroll as readily as stand-alone classes with the same caliber of student is not realistic without changing the requirements of an associates degree.

One reason why the results of this study match so closely with that of Delta College is because the methods used were nearly identical except for the control of instructors used in this study. At Delta two instruments were used, one objective and one subjective. The objective study compared the final grades for learning community and stand-alone classes of the same course as well as the withdrawal rates from those two groups of classes. The results of Delta's quantitative analysis are amazingly close to that of NIC and SFCC in this study. Fogarty and Weedman (1999) summarize the results as follows:

> Delta College learning communities students receive lower grades than students who take the same course(s) in stand-alone classes. Consistently. We began to consider these results. One pattern evident was bimodal grade distribution. The learning community courses showed a grade pattern of many A's, B's, few C's and D's, and a relatively high number of E's and drops. Grades in the stand-alone courses were constellated in the A's, and B's, a few C's, and hardly any D's, E's, or drops. As might be imagined, there are any number of variables we can't account for such as what kind of student is enrolling in learning communities or how instructors grade who were pulled for the comparisons. To add to the confusion, the results from the subjective instrument, a survey mailed to previous learning community students, were overwhelmingly positive. Apparently, students get somewhat lower grades...and love it. (p. 25)

The reason why the researchers at Delta reported less than positive results in all areas may have more to do with how they measured their learning communities than on any substantial differences in their learning communities than the other participating colleges of the FIPSE National Learning Communities Dissemination Project grant.

Rings, Shovers, Skinner, and Siefer (1999) report that Maricopa Community Colleges also compared final grades between learning communities and stand-alone classes of the same course. They found that learning community students did not receive significantly higher grades than students in the stand-alone classes. The authors stated that learning community students rather receive grades that "are comparable to those of students in stand-alone courses" (p. 45). This finding was shared only after reporting the results of what the authors call the "Analysis of the Measure of Intellectual Development" where the "significant intellectual growth for 40% of LC students tested" (p. 45). At Maricopa the qualitative data strongly supported learning communities as it did at Delta and in this study at NIC and SFCC.

Given the Rings, Shovers, Skinner, and Siefer (1999) Maricopa report, it may be that the external contradictions are not as common as they may seem prima facie. Instruments that specifically measure intellectual growth and critical thinking may yield different results than a comparison of final grades. However, unless the instruments are also used on both students in stand-alone and learning community classes of the same course, any inferences of the advantages of learning community classes over stand-alone classes are not warranted. Rings, Shovers, Skinner, and Siefer (1999) do report that students who have enrolled in learning communities in the Maricopa District do have higher student retention rates than students that do not. Once again it is difficult to determine if this is actually different from

NIC and SFCC since this study did not measure student retention at college after the particular class was over.

Internal Contradictions

Learning communities are not and they are superior to stand-alone classes in yielding student success may be the contradictory conclusion one reaches from reading the results of this study. The confusion perhaps lies with the equivocation of the word success. If student success is interpreted as receiving higher grades than it must be admitted that learning communities at NIC and SFCC are not superior to stand-alone classes in this regard. If success is measured by perseverance in a course rather than withdrawing then learning communities are not significantly better than stand-alone classes either. There appears to be more to the learning community experience than the numbers generated from grade rosters indicate, however. The Instructional Assessment Student (IAS) evaluations, the Learning Community Surveys, the focus group interviews, and the semi-structured interviews with faculty members overwhelmingly support the hypothesis that learning communities do promote learning in ways superior to that of stand-alone classes. This brings about the question, as it did for the researchers at Delta College, as to how the learning is different between the two modes of instruction. If grades are not a good indicator of this it would seem that another assessment instrument should be used. This kind of instrument is exactly what is being developed and pilot tested at Indiana State University (Chesebro, et. al. 1999). With pre-tests and post-tests the instrument shows promise in probing the degree of community building, skill in collaborative problem-solving, and such aloof areas as civic responsibility and the higher order thinking skills of interdisciplinary synthesis and

evaluation. The challenge here will remain to have an instrument that can measure stand-alone and learning community classes in a way that will reveal some reliable and valid comparable results.

The qualitative study, both in the learning community surveys and in the focus group interviews, did clearly indicate that students make interdisciplinary connections, develop a greater depth for understanding the disciplines being taught, and form a greater sense of community in learning community classes than in stand-alone classes. It can be argued that all of the above could be true and yet would still not be reflected in final grades. Certainly a number of institutions in the FIPSE project did take this approach and chose not to compare final grades but rather used an instrument that tried to assess this specialized type of learning.

The most commonly linked course in this study was English 101. At NIC a typical English 101 class is considered fully enrolled at a maximum capacity of twenty-three students. The same is true for linked or unlinked composition courses. Instructors are not compensated for the extra time it takes in planning or in the time they spend in the other instructors' classes. At SFCC a stand-alone English 101 class is considered fully enrolled with a maximum of twenty-eight students. Since instructors are compensated by having the course that they are linked to count part of their load, however, the maximum enrollment is forty-five in a paired or linked class and sixty in a coordinated studies class. At SFCC there may be a number of options besides English 101 as well, making the class comprised of students who may be taking it for English 201 credit or even for Speech credit. In such a scenario it is quite possible, as the students pointed out in the SFCC focus group interviews, for students to actually receive far less specific instruction in writing and speaking. This would explain in part why some of the final grades in these types of linkages were actually

lower in the learning community classes at SFCC than they were the stand-alone classes. It does not explain why that was the case at NIC, however. The most plausible explanations seem to be the fact that at NIC and SFCC learning community classes are the last to fill and often suffer from low enrollments because of it. Another reason is because instructors like NIC's A, B, C, and D admitted having higher expectations of the students and consequently using higher standards than in their stand-alone classes.

There were some patterns that should be mentioned concerning those learning communities that had the lowest grades, highest rate of attrition, and lowest means on the survey questions. At NIC and SFCC the learning communities that had the lowest grades means also had high attrition and relatively low Learning Community Surveys means when compared to the other learning communities. Several patterns emerged at both institutions. Students reported in the surveys of these courses that the instructors were only about average in the amount of time spent in collaboration, and only about average in the time spent integrating the subject matter of the courses linked together in the learning community. Students also reported only some amount of comfort in speaking out in class compared to stand-alone classes they had taken. Unfortunately students in neither the NIC linkage nor the SFCC coordinated studies classes where these somewhat negative results occurred were involved in focus group interviews. In both the NIC and SFCC learning communities mentioned here instructors did complain that they felt that at least one of the team-teaching partners was not doing their share to integrate the subject matter of the other course(s). At both institutions at least one of the team-teaching instructors had received no previous instruction as to how to teach in a learning community.

Implications of Learning Communities

It is clear that students and faculty highly value the learning community experience regardless of the final grade analysis. As a former instructor of philosophy I was delighted to find that learning community students did not use grades they were getting in the courses as the only criteria for whether the classes were a worthwhile educational experience. All the students, with no exceptions, in the focus group surveys said they would highly recommend the learning community experience to their friends even though it was a lot of work. Nine of the ten instructors interviewed revealed that they planned to continue teaching in learning communities. The one instructor that did decide to discontinue his involvement in learning community teaching still believed strongly in it as a pedagogical concept but was not satisfied with the amount of administrative support at NIC and the disproportionate amount of effort he had spent compared to his teaching partner.

The pedagogical philosophy espoused by Dewey (1916) and Meiklejohn (1932) seems to have found its way into the experiences of students and instructors involved in learning communities. As Gill (1993) states it,

> "Students need to be enabled to recognize, explore, and draw conclusions about the relational interconnections between and among the various dimensions of the real, the true, and the good which they encounter within and outside the classroom. This, of course, requires that teachers be able to model and engage students in this sort of cross-disciplinary interactions. (p. 212)

Gill argues that the primary concern of any educational endeavor must be to enable learners to learn how to engage in lifelong learning and that can happen only when students are

engaged "in dialogical interaction as an end in itself (209). The teacher becomes a dancer in what Gill refers to as the dance, an interactive process of learning. The teacher's role is "within the circle of dancers, as a participant, rather than outside it, as its choreographer" (231). Perhaps it is this role as Gill refers to it, one quite different from the role played by teachers in many stand-alone classes, that instructors find so refreshing concerning teaching in a learning community. The focus group interviews made it obvious that students enjoyed the role their instructors had played in the learning communities. The instructors, similar to what Gill advocates, are seen much more as fellow learners modeling the process of learning.

The Learning Community Surveys and group focus interviews also reveal the high regard that students hold for the interdisciplinary nature of learning communities. Boyer (1990) argues that colleges need to move in this direction and away from the segmented traditional disciplinary boundaries, or what Palmer (1999) has called the "pathology of disconnection." As Boyer phrases it,

> Today, interdisciplinary and integrative studies, long on the edges of academic life, are moving toward the center, responding both to new intellectual questions and to pressing human problems. As the boundaries of human knowledge are being dramatically reshaped, the academy surely must give increased attention to the scholarship of integration. (p. 21)

Along with students and instructors appreciating the connections learning communities make apparent between the disciplines, the sense of community felt by both students and instructors is even more pervasive in the qualitative results of this and many other studies conducted on learning communities. The connection with others has both

direct and indirect pedagogical benefits for students and instructors alike. Dewey's (1916) concept of education for democracy certainly seems better served in the community of learners found in the learning community pedagogy. The phenomenology of Merleau-Ponty (1962) focusing on the interaction of the learner's experience also seems best served in the learning community approach as learners learn from all facets of their interaction with their learning environment. The focus group interviews revealed the high regard students hold for learning from each other.

The interviews with instructors made it clear how much working with fellow colleagues was valued. As Perin (1999) writes, "Instructors felt 'rejuvenated' by the opportunity to work with colleagues and increase their knowledge of other subject areas" (p. 32). As Boyer (1990) argues, "Today, more than at any time in recent memory, researchers feel the need to move beyond traditional disciplinary boundaries, communicate with colleagues in other fields, and discover patterns that connect" (p. 20). The instructors at NIC and SFCC emphasized in the interviews the rich sense of faculty development that transpired because of the learning community teaching experience. This is consistent with other qualitative data gathered at other community colleges. At Maricopa Community Colleges, for instance, in their FIPSE project report Rings, Shovers, Skinner, and Siefer (1999) state that "An important lesson learned by faculty and administration has been that participation in a LC is a wonderful faculty development opportunity" (p. 48).

Final Remarks

The most cost effective way to deliver education should never be assumed to be the best way. The large lecture hall filled with tuition-paying students taught by a teaching

assistant or an adjunct faculty member may be the cheapest way to deliver education, at least until further refinements are made to improve the virtual delivery involved in asynchronous learning. Most administrators and faculty, and hopefully the legislators and the general public, will not let bottom line economics dictate how higher education has to be delivered. Most, if not all, community colleges pride themselves on being learning centered institutions. This study, along with a number of others recently, have shown learning communities to be an important addition to a quality learning experience.

However, as Perin (1999) points out, "the costs of integration in terms of time and effort appear to be as high as any campus innovation" (p. 32). The costs of offering learning communities at NIC can be said to be the time and effort spent by faculty members. These faculty members are not compensated for the additional effort it takes to teach in learning communities. As the NIC instructors made it clear in the interviews, there is a paucity of learning community options at NIC due to the tremendous demand put on instructors' time for no compensation other than the joy of experiencing the enhanced learning and sense of community. If NIC is to increase the number of learning community offerings it seems clear that some form of release time and/or stipends for development will need to be supported by the administration.

At SFCC the costs of integration that Perin refers to are indeed high. With faculty receiving stipends for development and receiving release time for teaching in a learning community the costs are more per student than they are for stand-alone classes. This is particularly true in coordinated studies courses where three teachers each receive their full workload assignments of teaching three five credit quarter classes. The argument could be made that since learning communities retain students at the college that this needs to be

factored into the cost-benefit analysis. Since withdrawal from class does not necessarily equate with student retention rates, the results of this study can neither be said to support nor refute this claim. The low enrollment of learning community classes seem to be the biggest cost factor, and occasionally learning community classes do get cancelled or separated into stand-alone classes for this reason. The attempt to increase class size in order to lower the costs do help allay costs, but some students in the focus group interviews commented that this may work at cross purposes for what the learning community is trying to accomplish with more teacher/student contact. The FIPSE project report by Jackson-Evans and Van Middlesworth (1999) of The Metropolitan Community Colleges of Kansas City may offer some important lessons for SFCC. Jackson-Evans and Van Middlesworth advise their own college district to "Do research into the patterns of student enrollment in courses and build 'anchor stores' as opposed to 'boutiques' around this information" (p. 61). They recommend tying required courses together. SFCC will likely find that faculty can continue to offer quality learning communities but at a greater cost savings if it follows this advice.

Many universities, such as the University of Washington with Freshman Interest Groups (FIGS), are well known for offering learning community experiences for students experiencing their first year of college. What the Learning Community Surveys of this study indicate, however, is that the student group who reports benefiting the most from the learning community experience are second year students. Furthermore, the age group that benefits the most are nontraditional students over thirty years of age. Both NIC and SFCC offer learning community options that appeal to both first and second year students and are open to students of all ages. Based on the results of this study it is advisable for both institutions to keep offering the options that allow second year students to enjoy the benefits of learning

communities. SFCC does offer learning communities in developmental education classes as well. The results of the Learning Community Surveys indicated a high level of student satisfaction in this category of classes so NIC may want to investigate offering learning community courses in this area.

Like most innovations, learning communities do not offer an educational panacea that forms the best option for all students and all faculty members. Martinez (1999) wrote in the FIPSE project report for California State University Los Angeles that learning communities are "complex and therefore complicated. Yet, we have found that they are well worth the effort" (p. 80). As many of the instructors shared in their interviews, there are certain characteristics required for faculty members who desire a successful learning community teaching experience. As Jackson-Evans and Charles Van Middlesworth (1999) of Metropolitan Community Colleges of Kansas City report, a lesson learned from the FIPSE project is to "know that those who engage in this enterprise need to be flexible, risk-taking, and collaborative; to have a good work ethic and a high tolerance for ambiguity, to be able to let go of control, and can keep ego on hold" (p. 61).

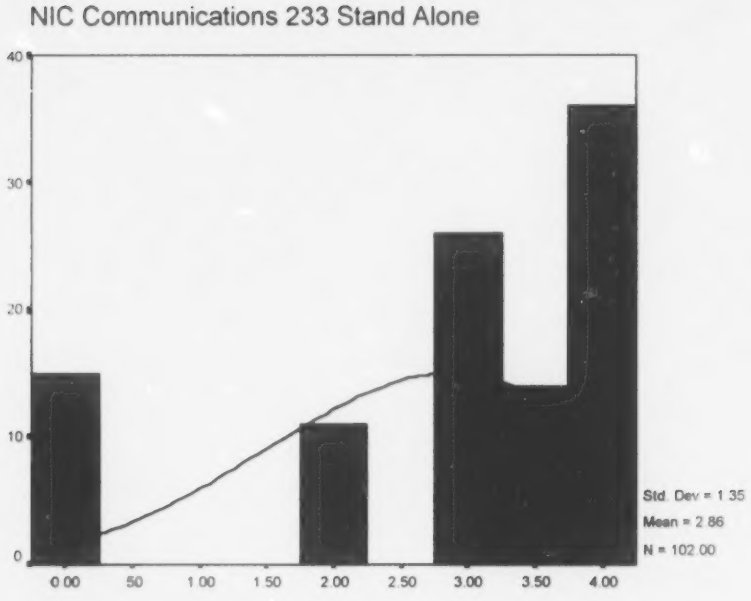
Learning communities do not appear to be right for all faculty members. The argument has been made and remains to be proven or refuted that learning communities are not a fit for every discipline and every course. It has also been argued that learning communities are not for every student. Advisors should keep this in mind when recommending learning communities to students. There was a great deal of diversity in the learning communities examined in this study. There were differences in class size, the number of course offerings, the teacher to student ratio, the experience and training of the instructors, and the overall design and assessment of the communities. The advantages of

learning communities are many, yet learning communities are not for everybody. NIC instructor C (5-4-1998) puts this in perspective in the following:

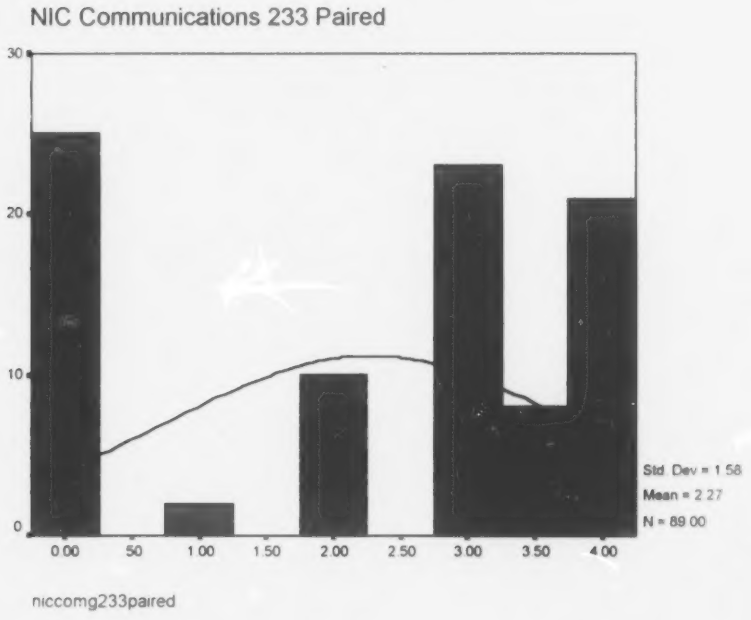
> Do I think it's the answer? No. Any more the answer than the collaborative learning or the lecture, or anything else. For some students it's going to work well and for some students it's going to not work so well. And one of the things you can't do is beat yourself up over it. You take the rewards where you can. And it will work with some students, but other students it's not. That's the way everything seems to be in education.

APPENDIX B

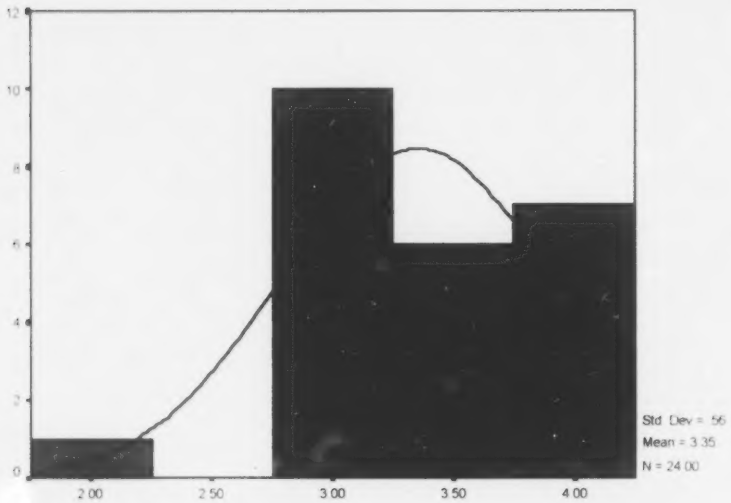
Final Grade Roster Analysis



Graphs #10 & 11



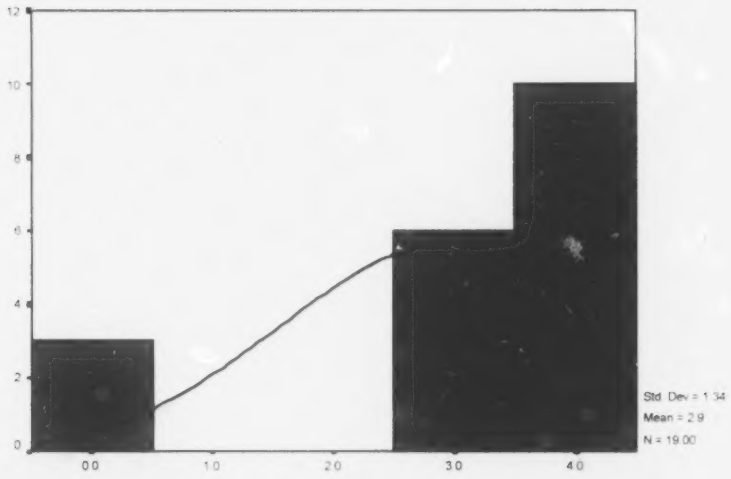
Graph # 12 NIC Sociology 220 Marriage & Family Stand-alone



NIC SOC 220 96 Spring stand alone

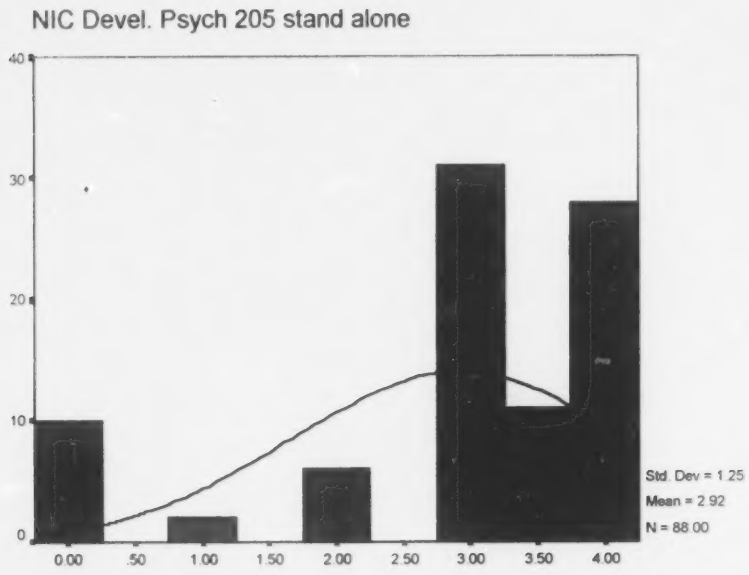
Graph #13

NIC Sociology 220 Marriage & the Family Paired



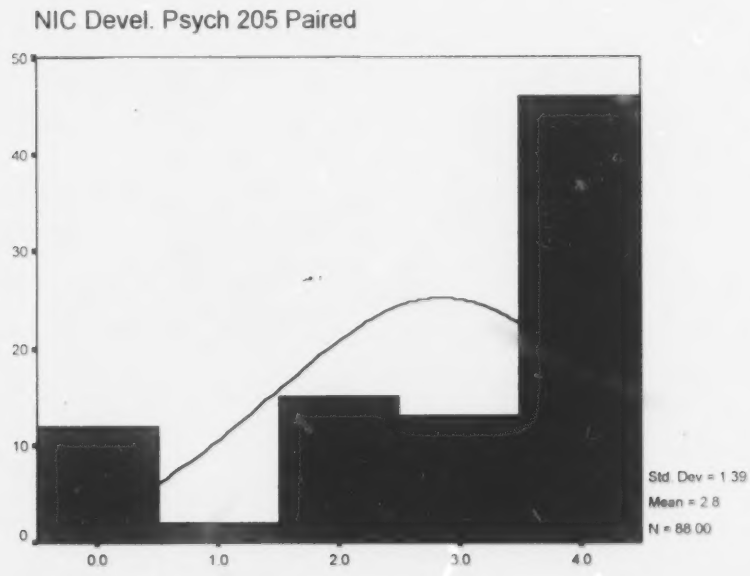
NIC SOC 220 F96 paired

Graph # 14



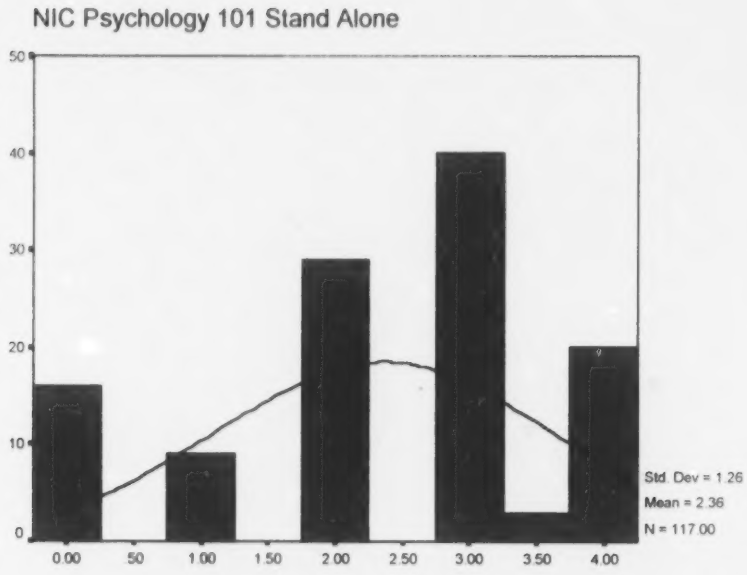
NIC Devel Psych 205 stand alone

Graph #15



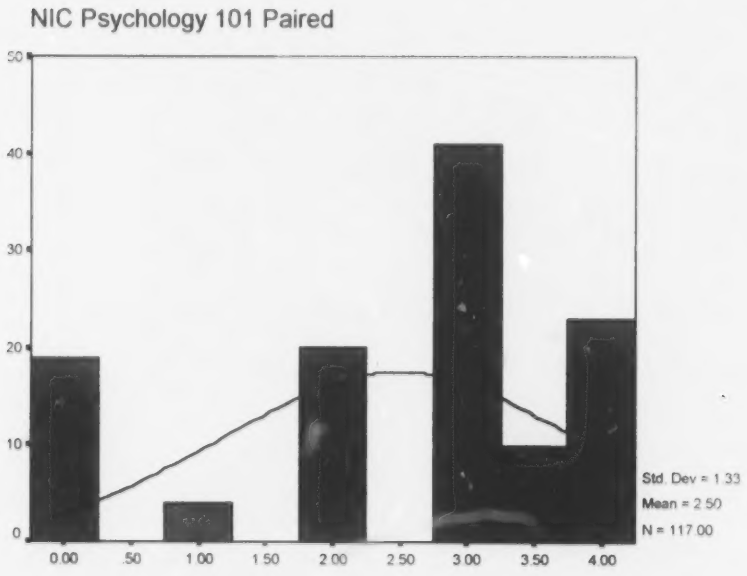
NIC Devel Psych 205 Paired

Graph #16



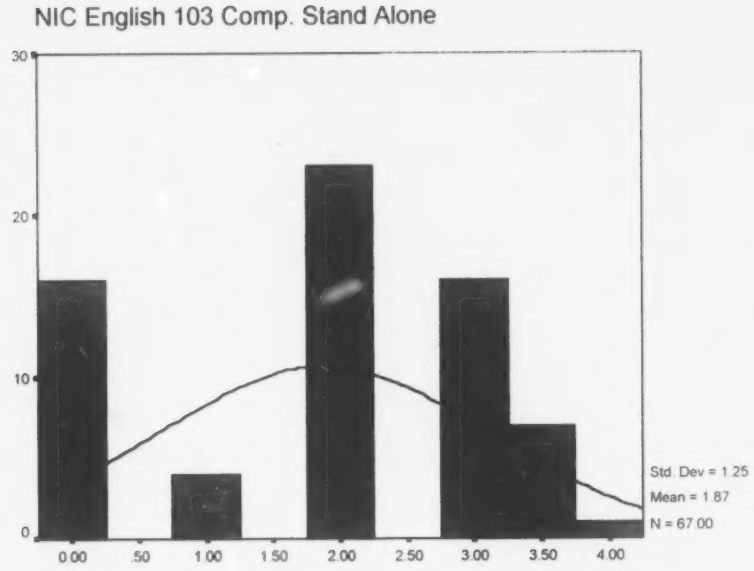
NIC Psych 101 Stand Alone

Graph # 17



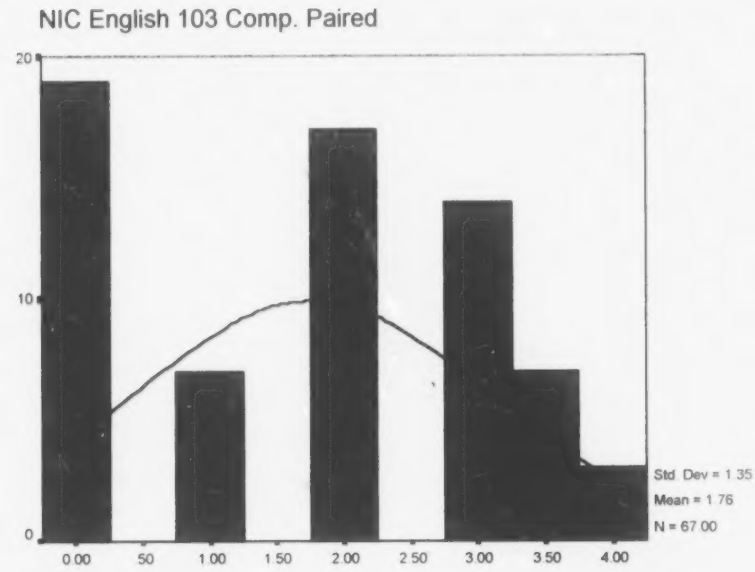
NIC Psych 101 Paired

Graph # 18



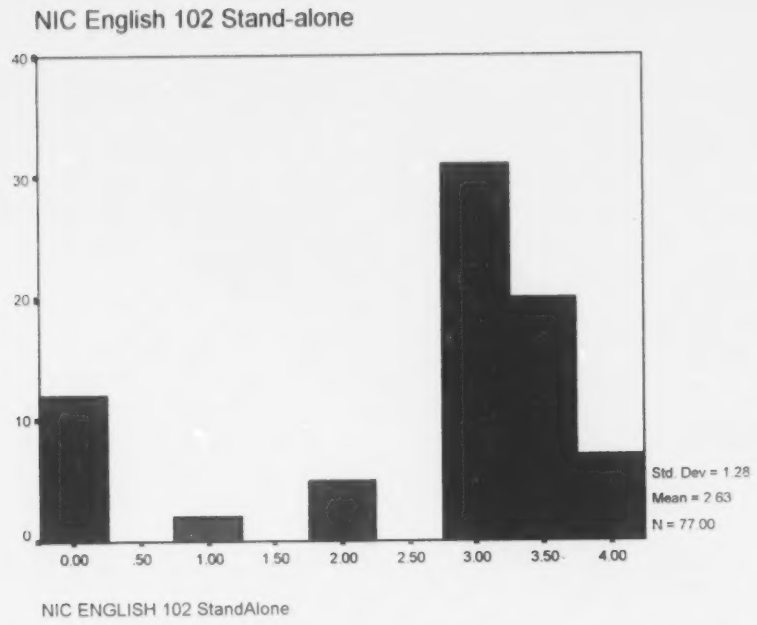
NIC English 103 Comp. stand alone

Graph # 19 (Both classes taught by Instructor D, numbers changed to 101)

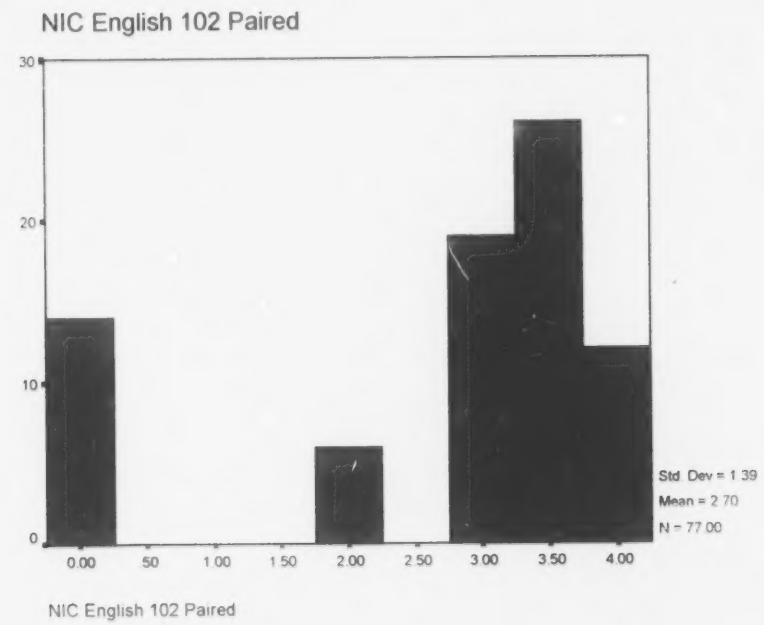


NIC English 103 Comp Paired

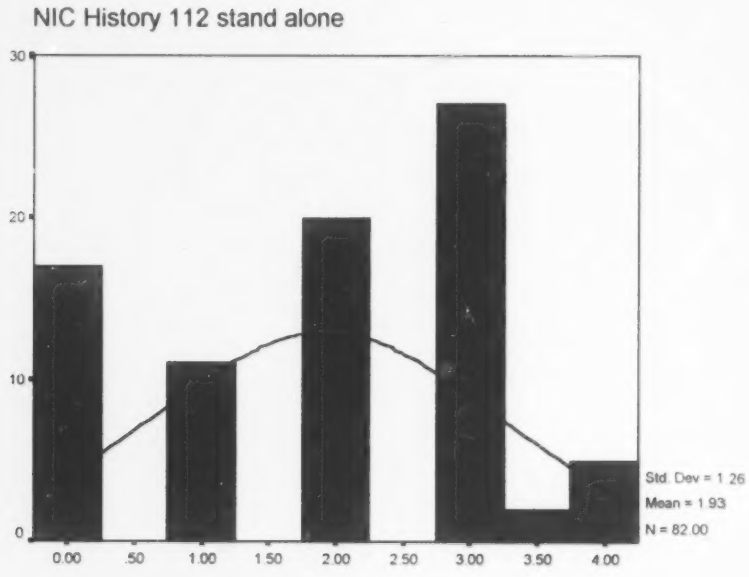
Graph # 20



Graph # 21

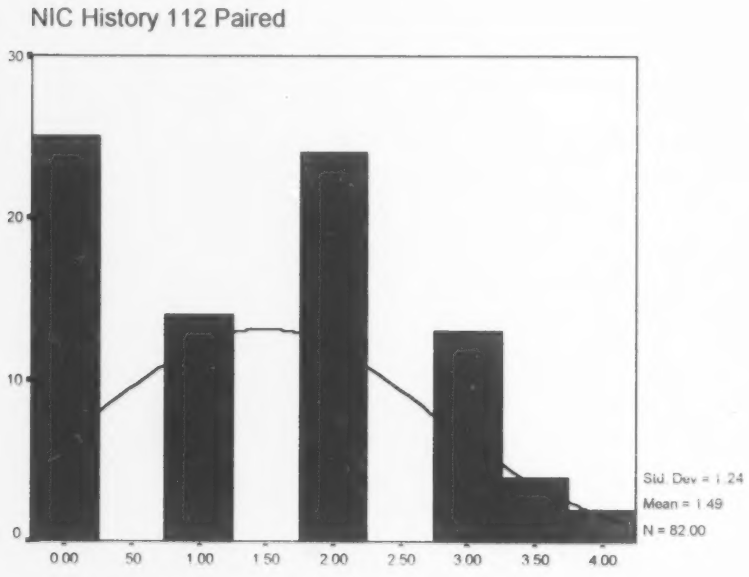


Graph # 22



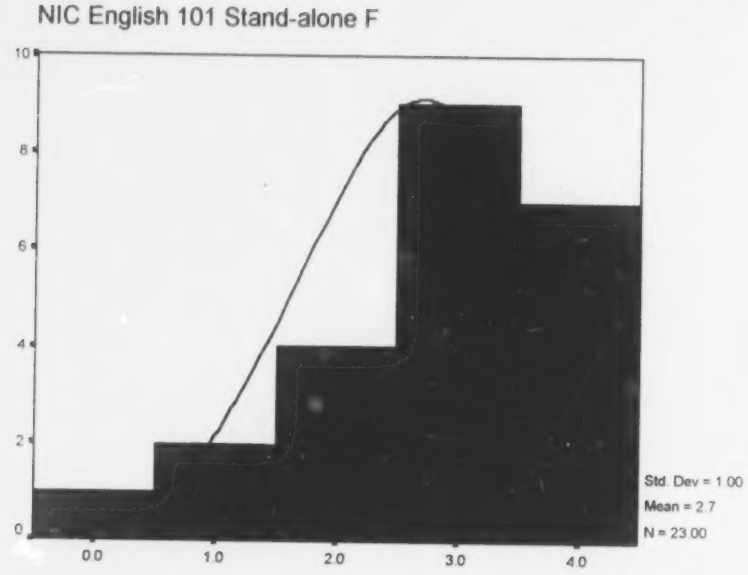
NIC History 112 stand alone

Graph # 23

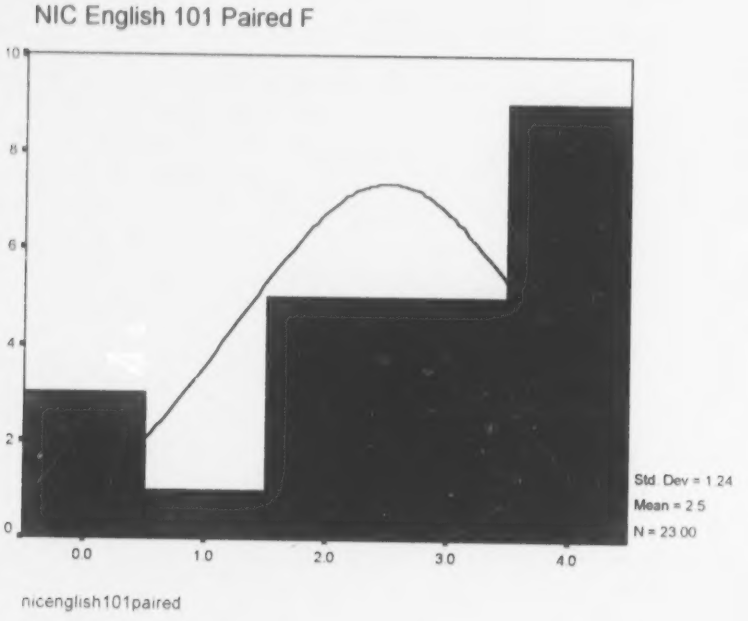


NIC History 112 Paired

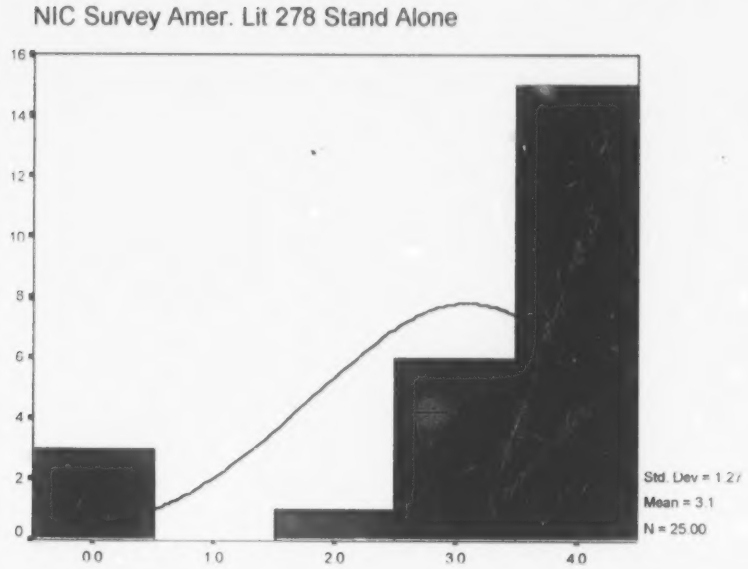
Graph # 24



Graph # 25

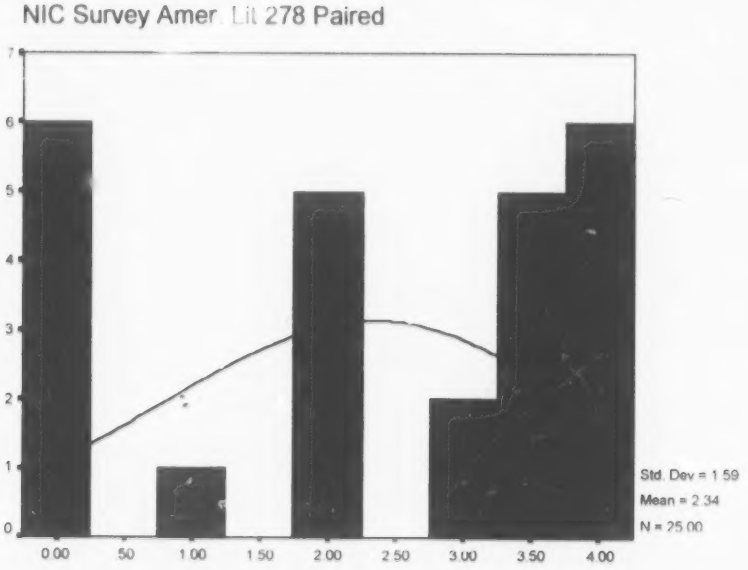


Graph # 26



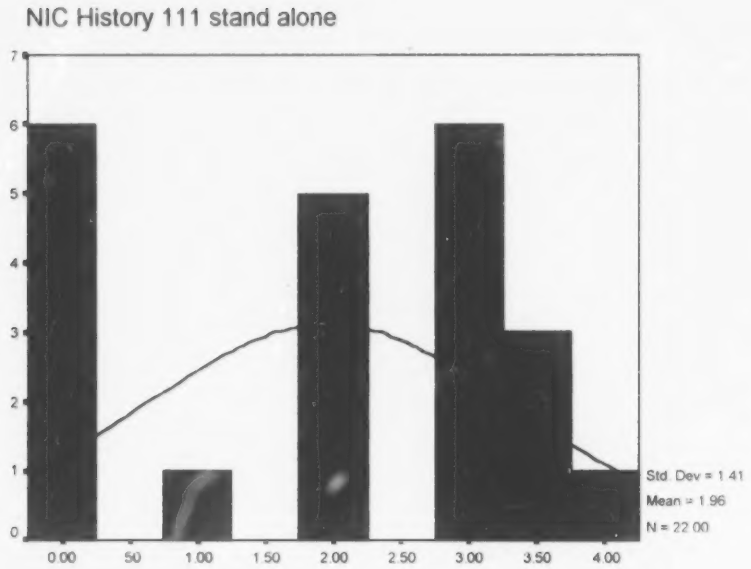
NIC Survey Amer. Lit 278 Stand Alone

Graph # 27



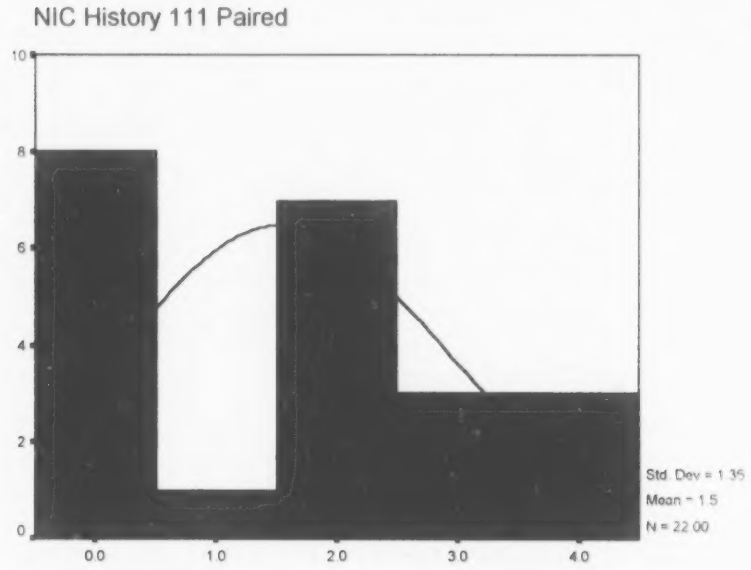
NIC Survey Amer. Lit 278 Paired

Graph # 28



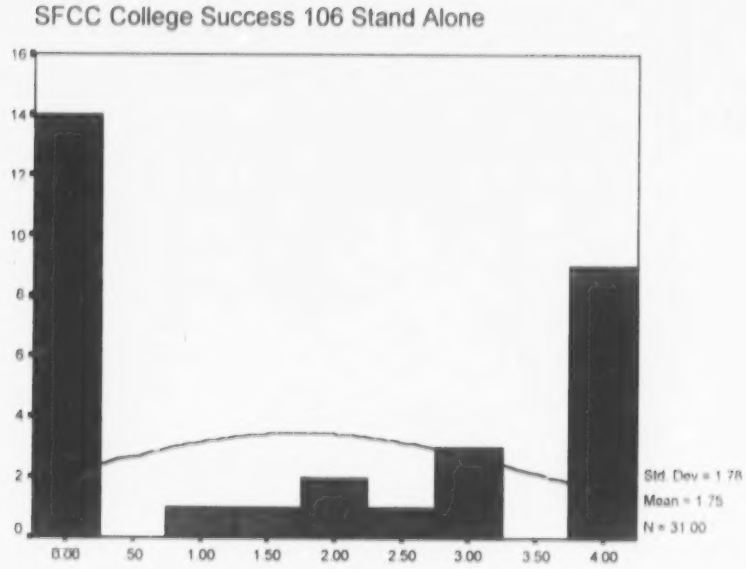
NIC History 111 stand alone

Graph # 29



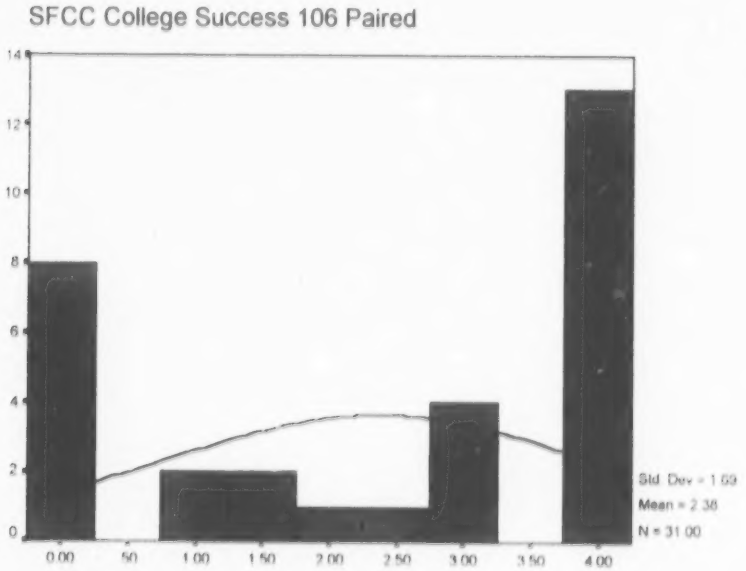
NIC History 111 pd

Graph # 30



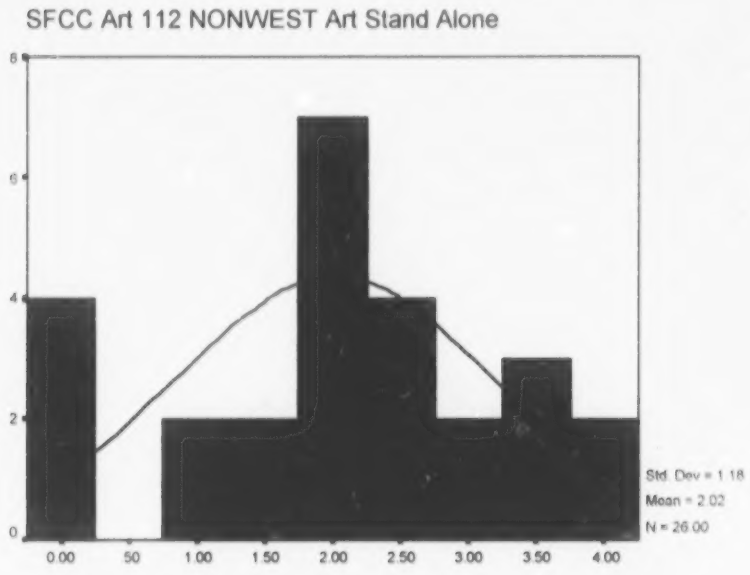
SFCC College Success 106 Stand Alone

Graph # 31



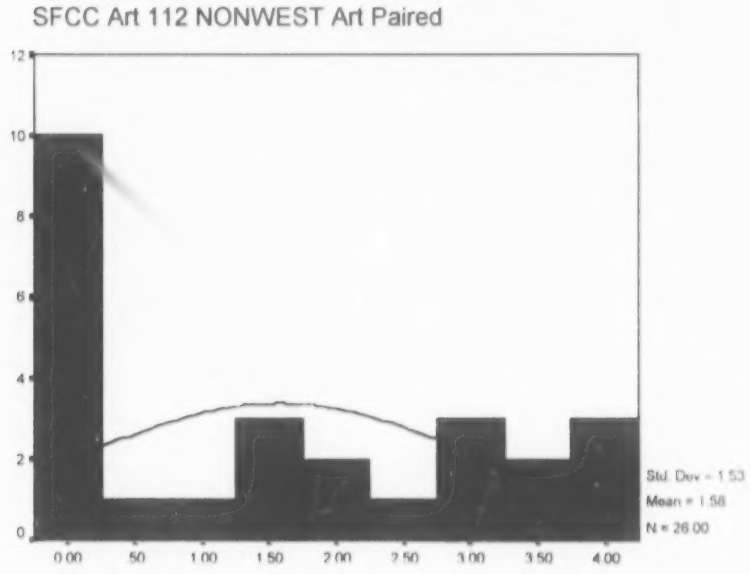
SFCC College Success 106 Paired

Graph # 32 Taught by Instructor AB



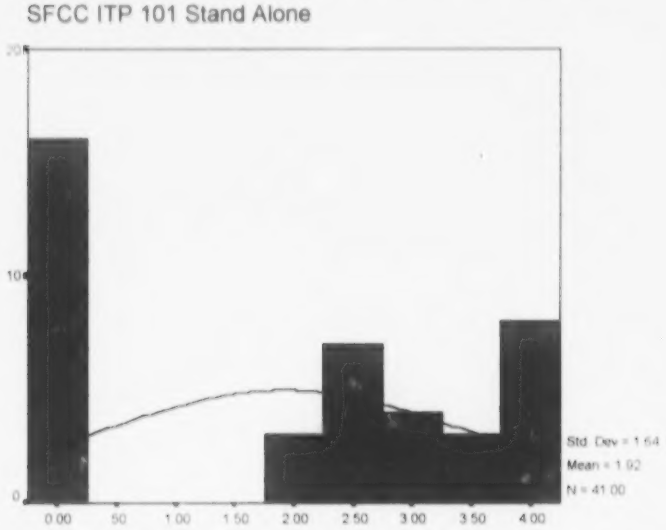
SFCC Art 112 NONWEST Art Stand Alone

Graph #33



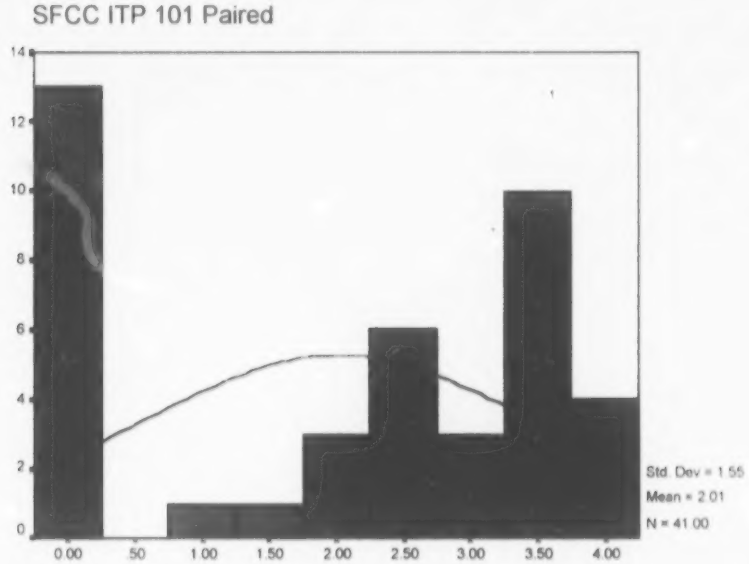
SFCC Art 112 NONWEST Art Paired

Graph # 34 Early Childhood Education



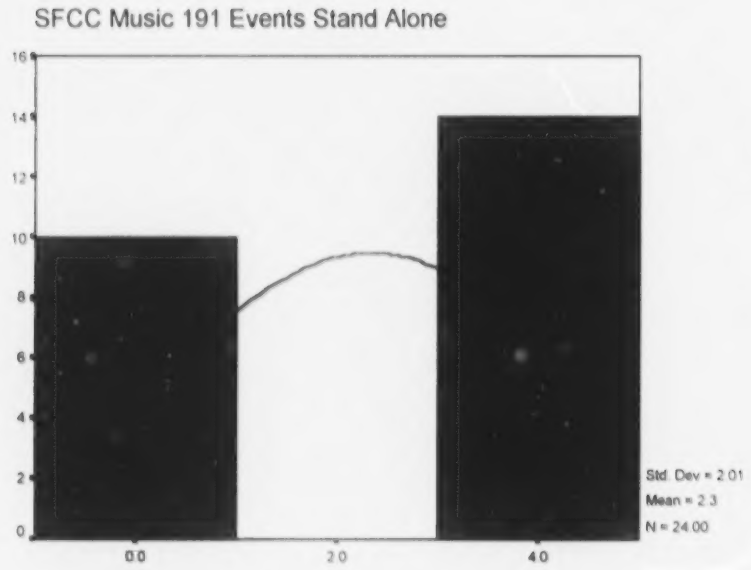
SFCC ITP 101 Issue&Trends Stand Alone

Graph # 35 Early Childhood Education 101



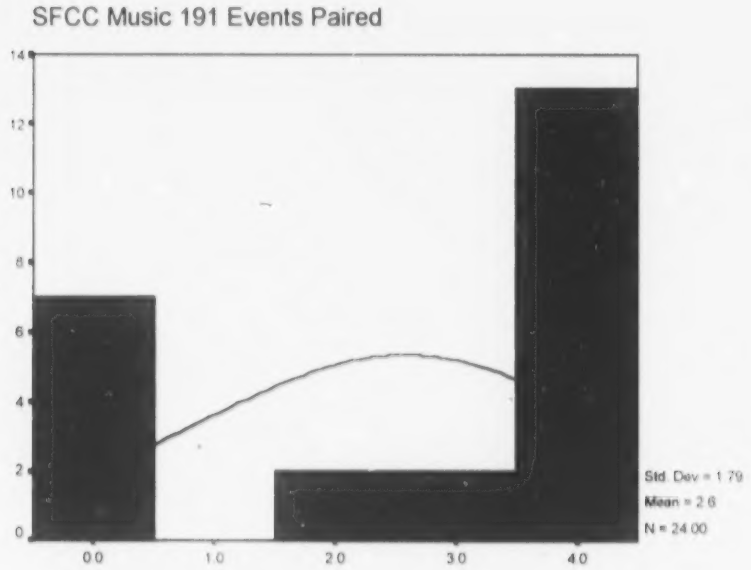
SFCC ITP 101 Issue & Trends Paired

Graph # 36



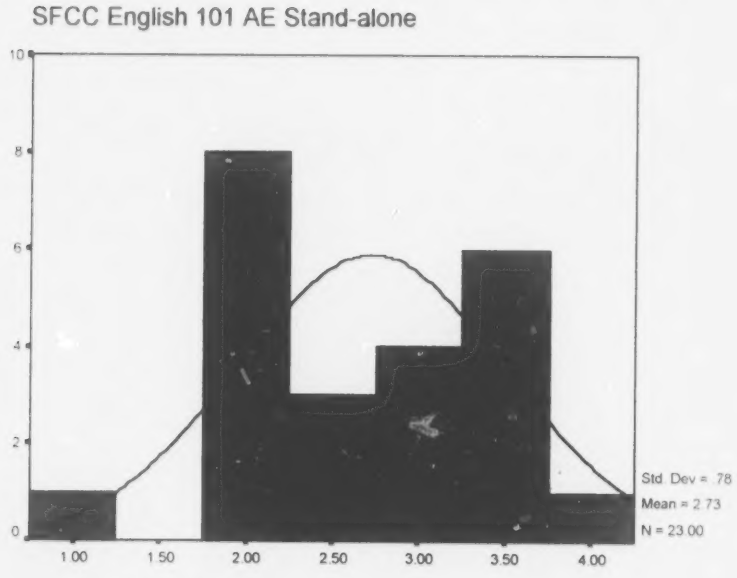
SFCC Music 191 Events Stand Alone

Graph # 37



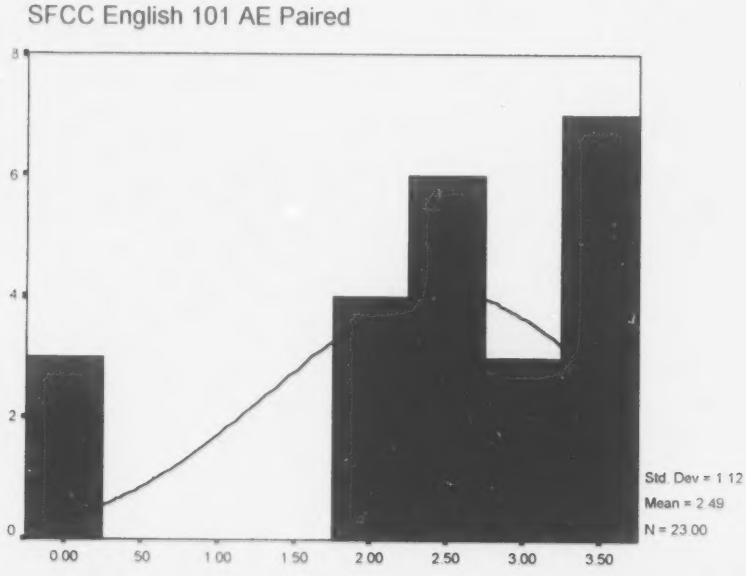
SFCC Music 191 Events Paired

Graph # 38



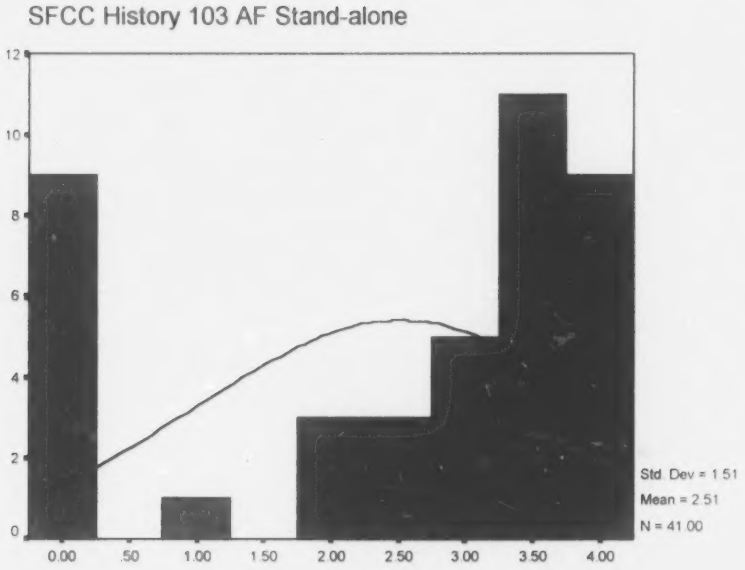
SFCC English 101 G Stand Alone

Graph # 39



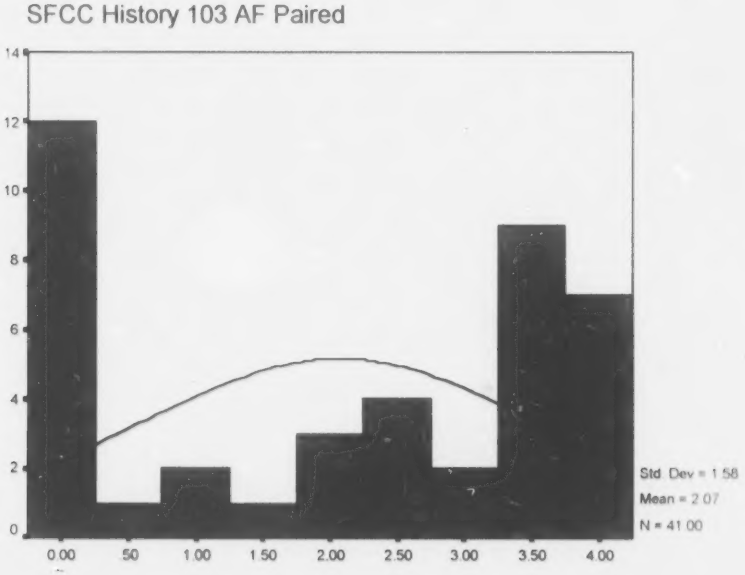
SFCC English 101 G Paired

Graph # 40



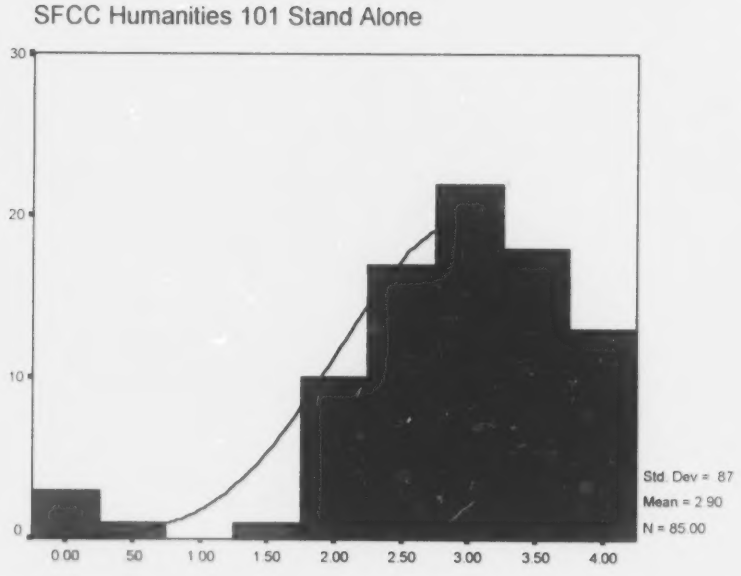
SFCC History 103 M Stand Alone

Graph # 41



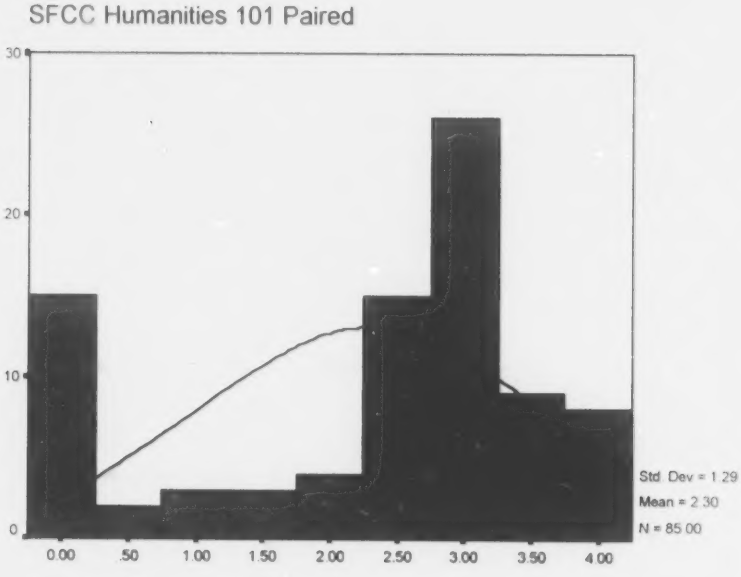
SFCC History 103 M Paired

Graph # 42



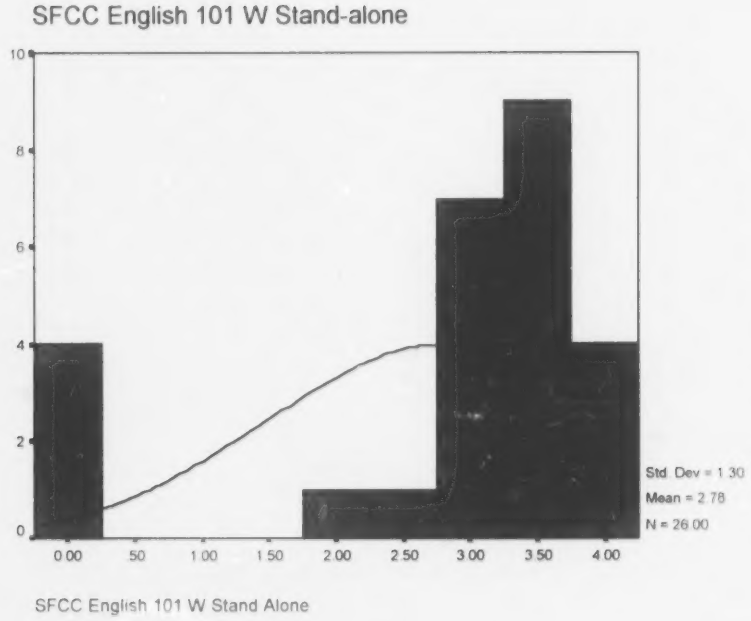
SFCC Humanities 101 Stand Alone

Graph # 43

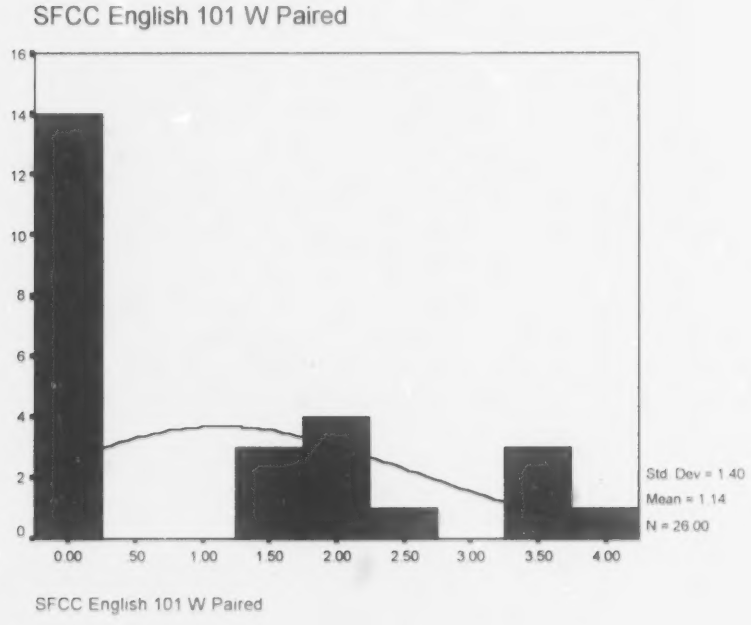


SFCC Humanities 101 Paired

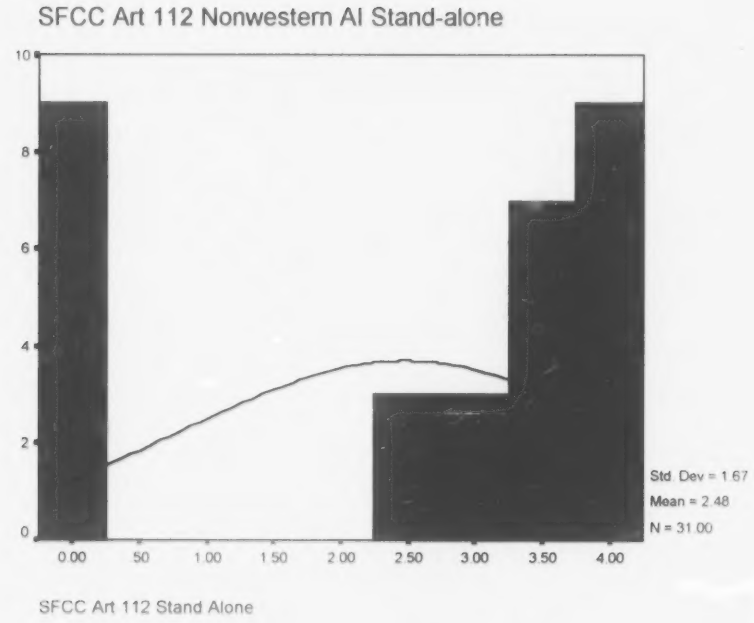
Graph # 44



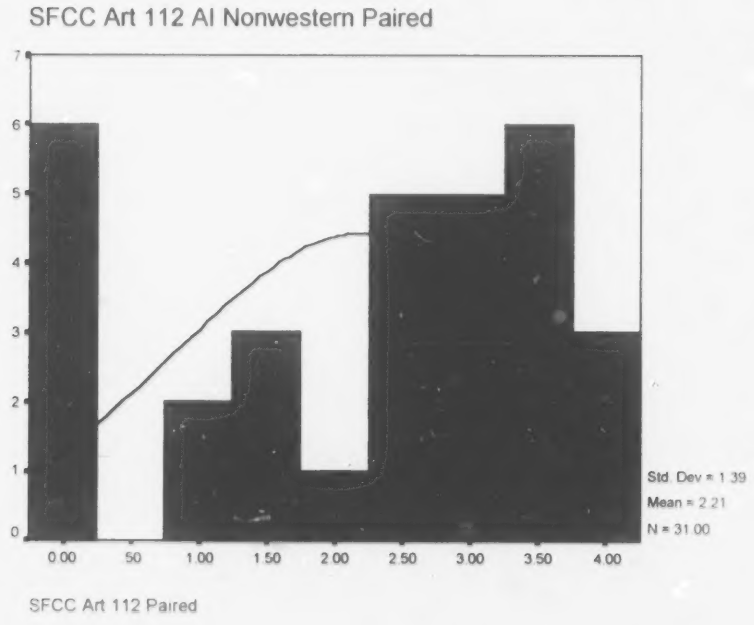
Graph # 45 Taught by Instructor AH



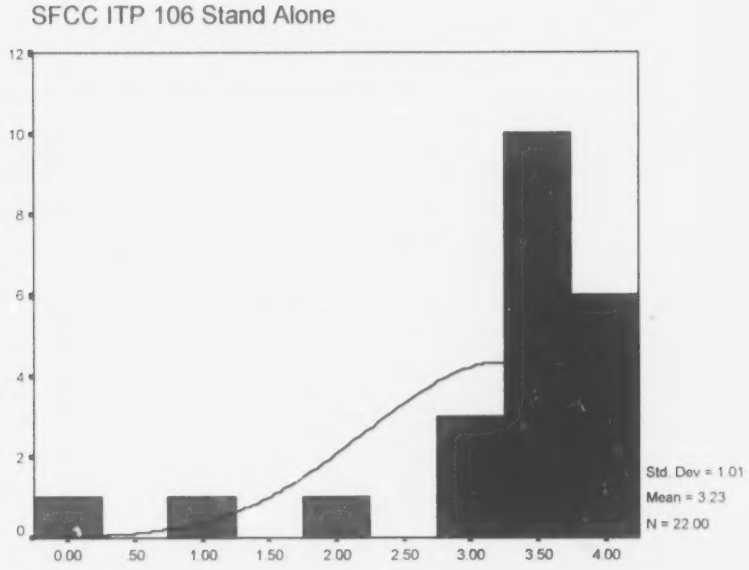
Graph # 46



Graph # 47

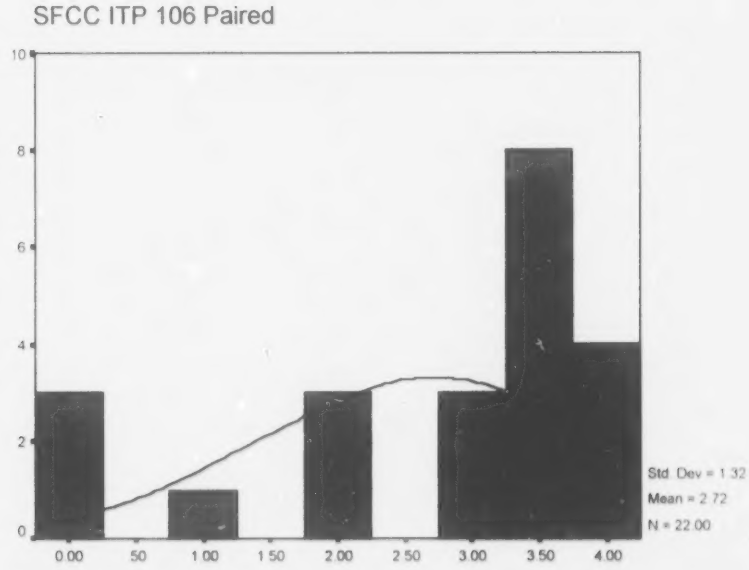


Graph # 48



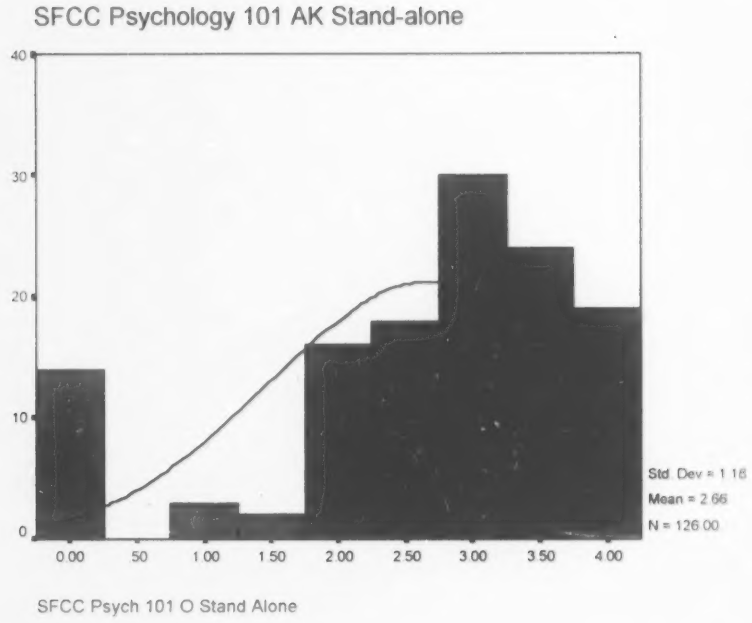
SFCC ITP 106 Stand Alone

Graph # 49

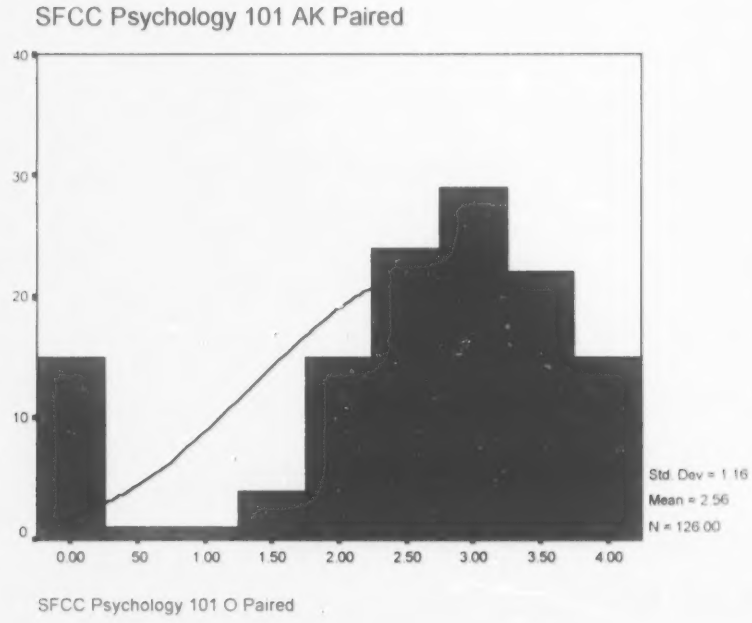


SFCC ITP 106 Paired

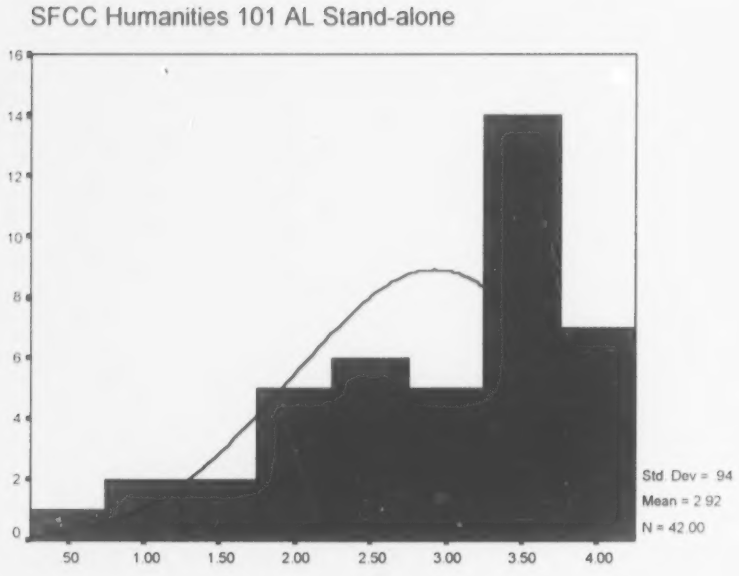
Graph # 50



Graph # 51

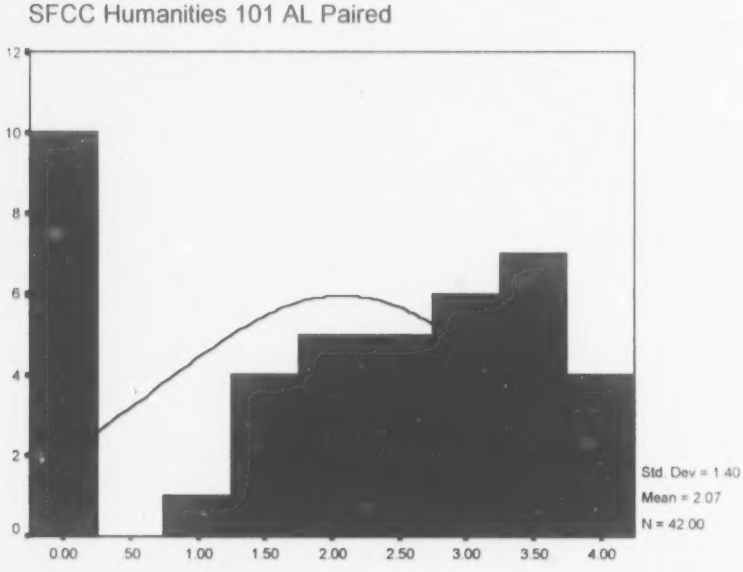


Graph # 52



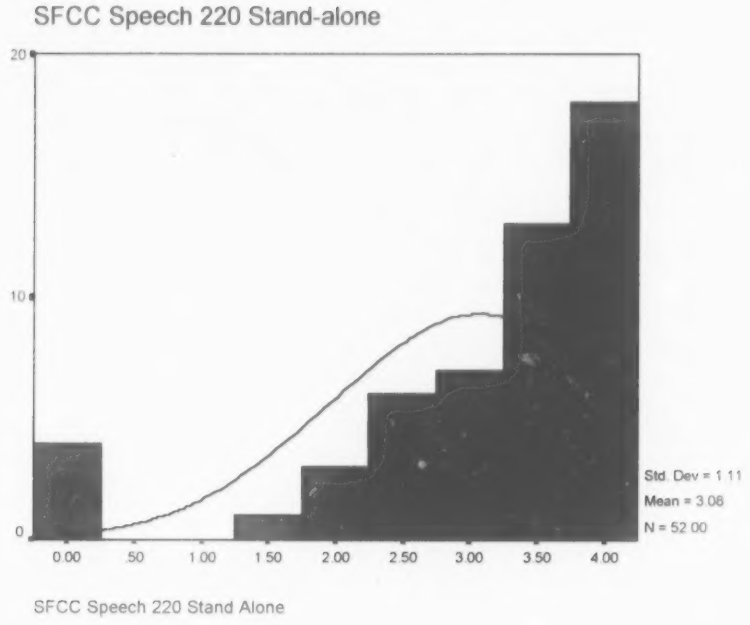
SFCC Humanities 101 B Stand Alone

Graph # 53

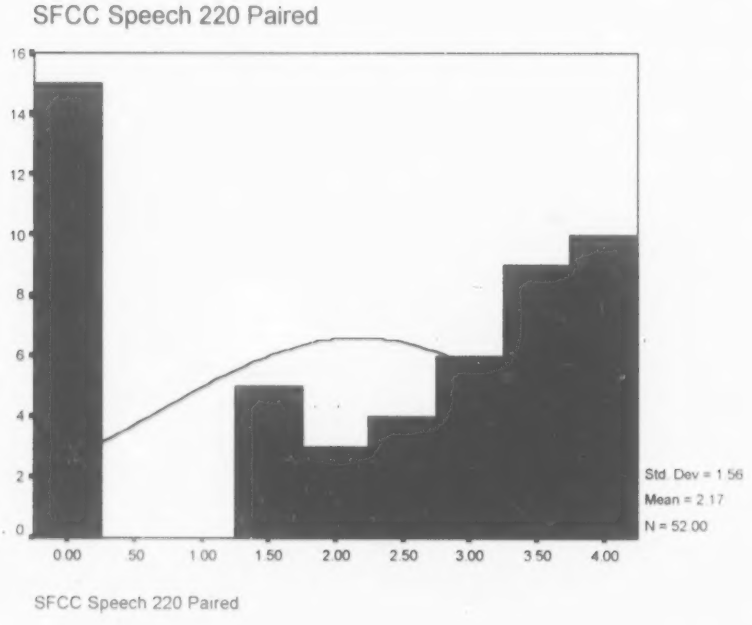


SFCC Humanities 101 B Paired

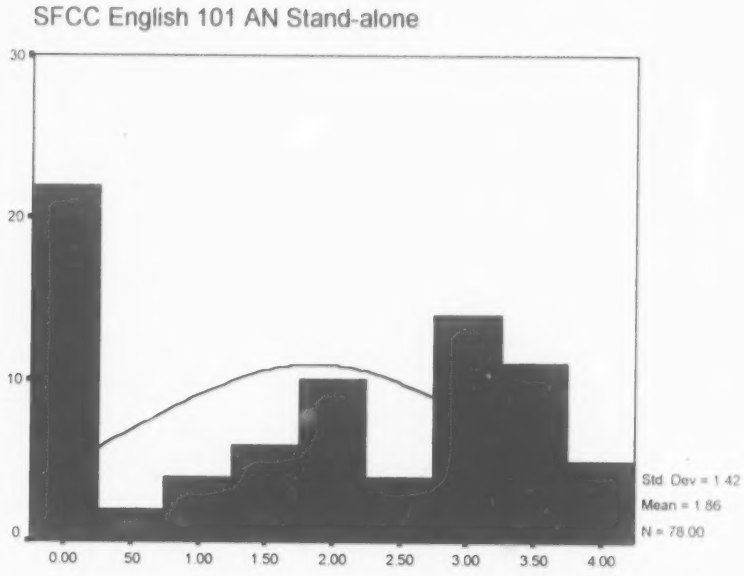
Graph # 54



Graph # 55

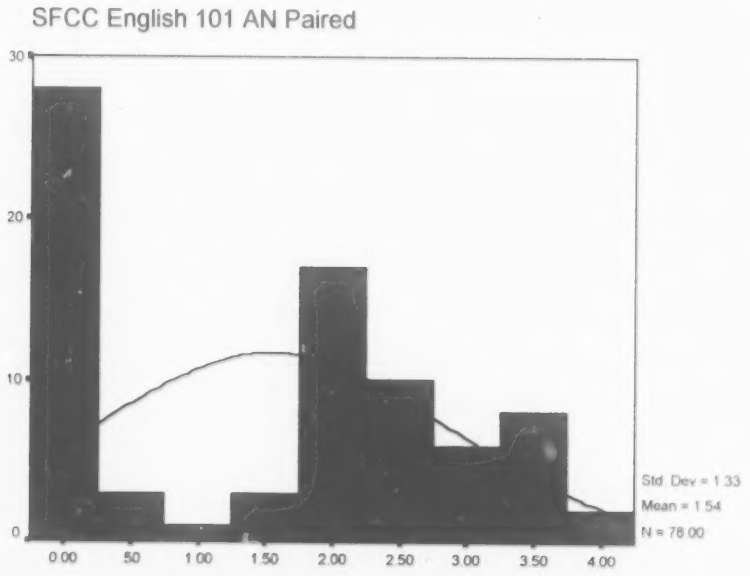


Graph # 56



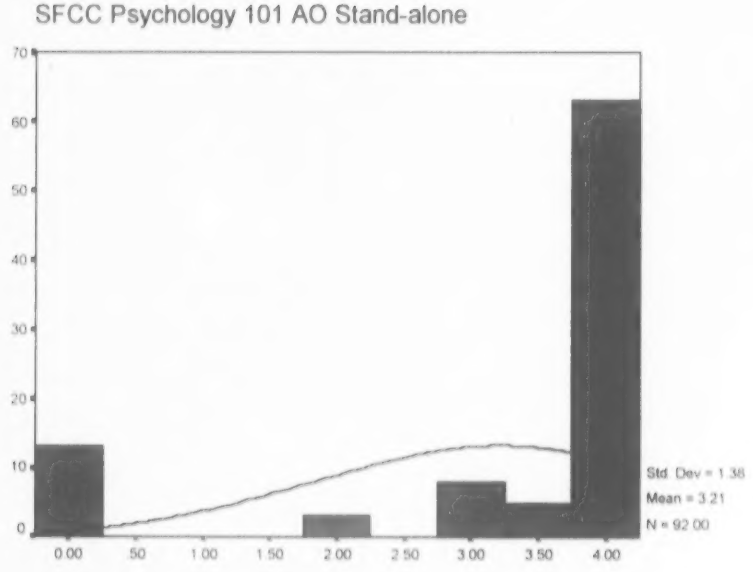
SFCC English 101 K Stand Alone

Graph # 57

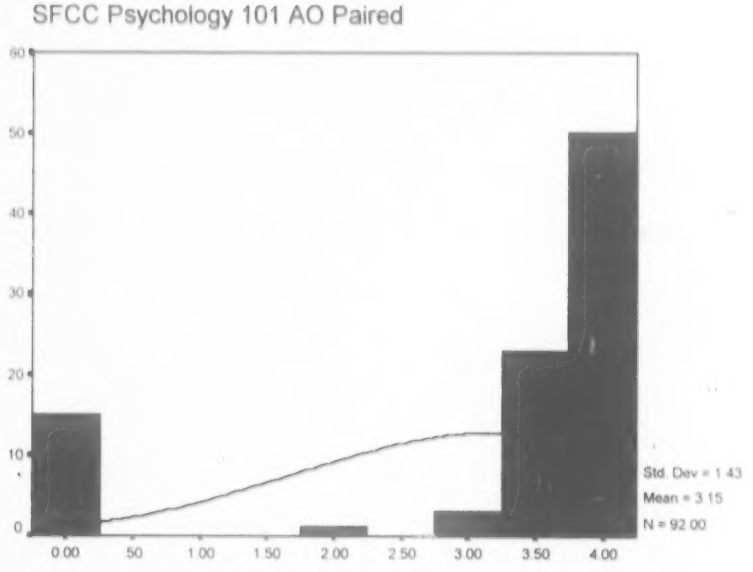


SFCC English 101 K Paired

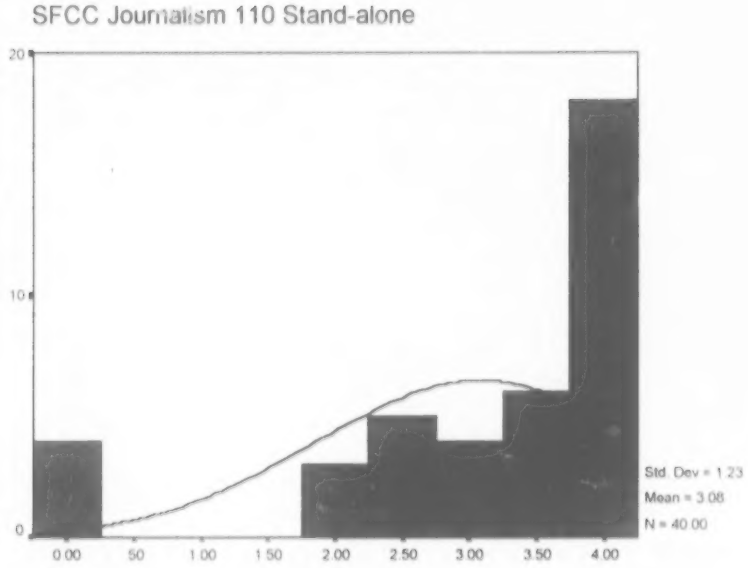
Graph # 58



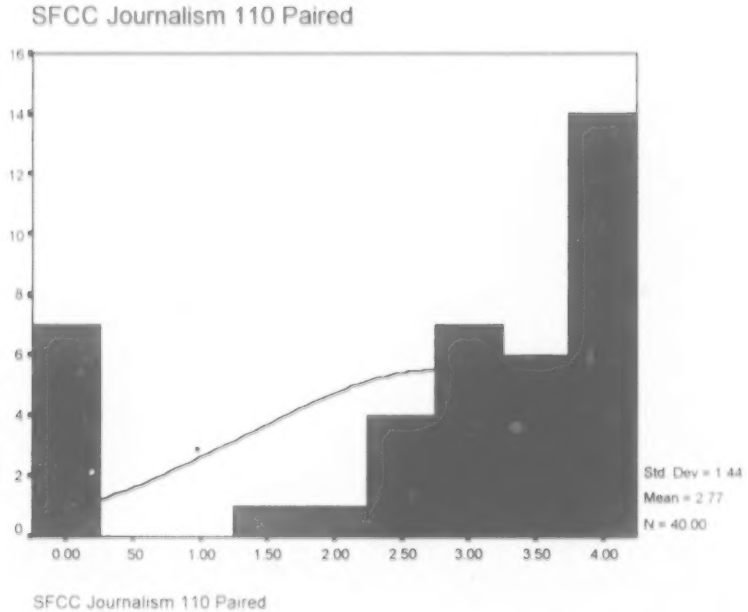
Graph # 59



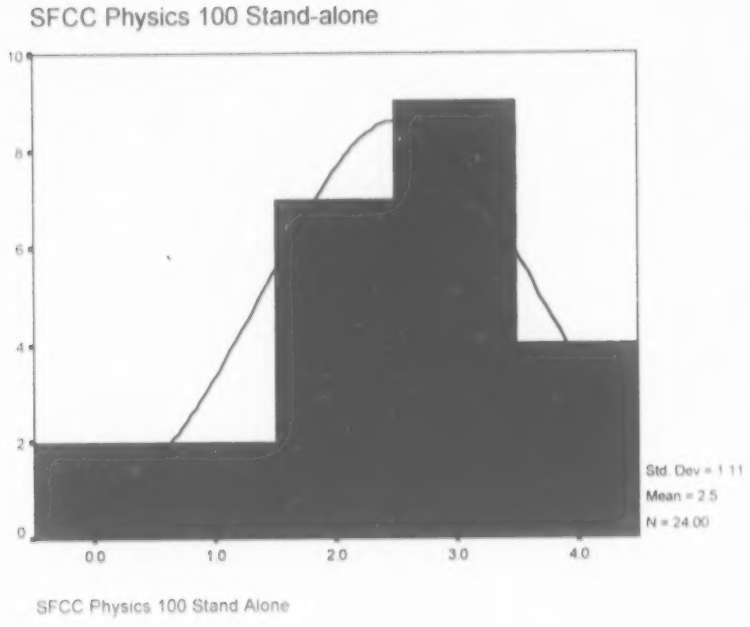
Graph # 60



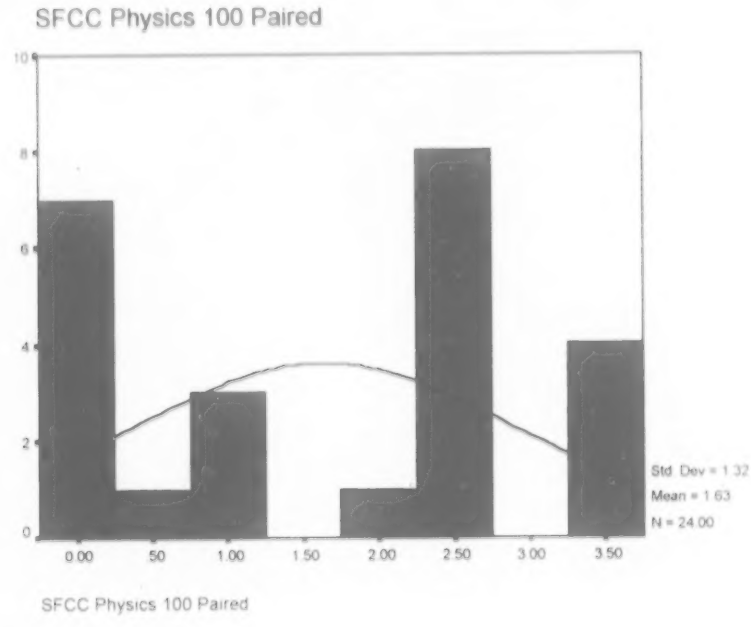
Graph # 61



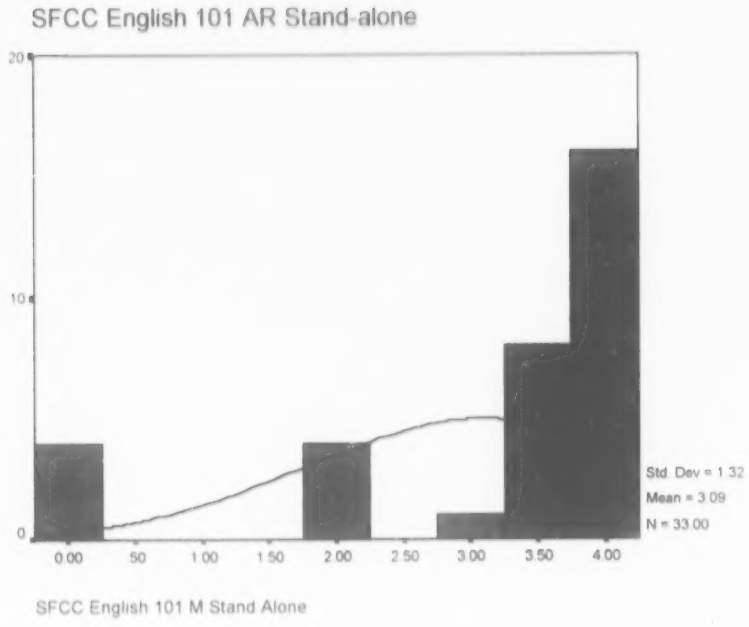
Graph # 62



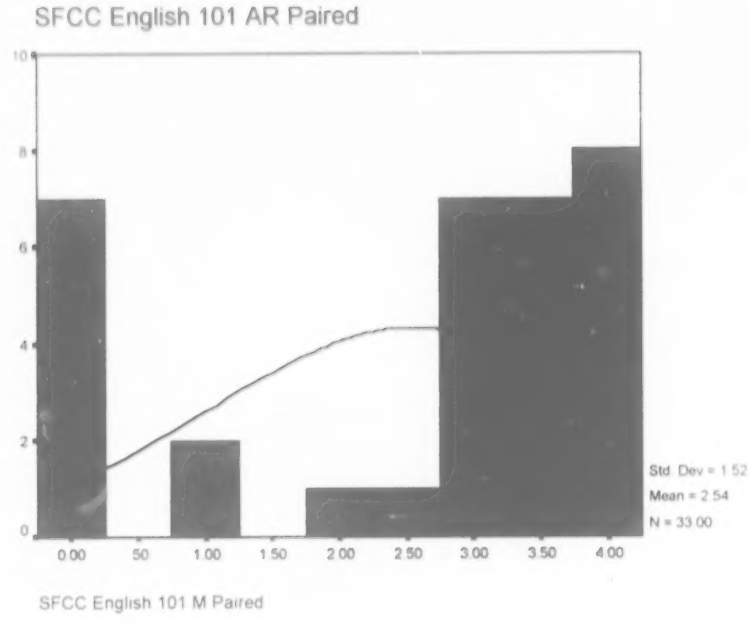
Graph # 63



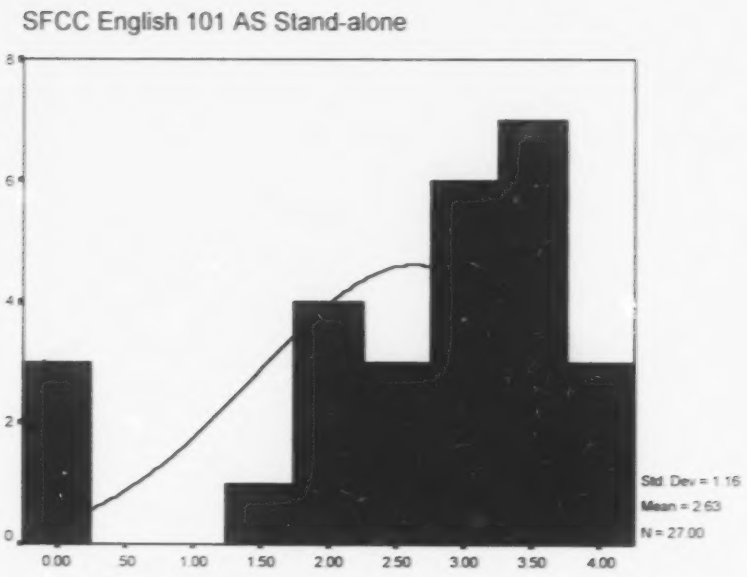
Graph # 64



Graph # 65

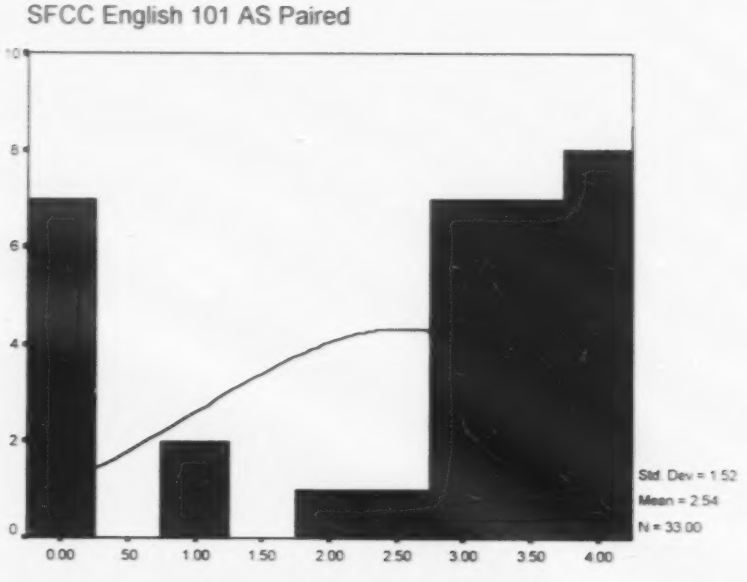


Graph # 66



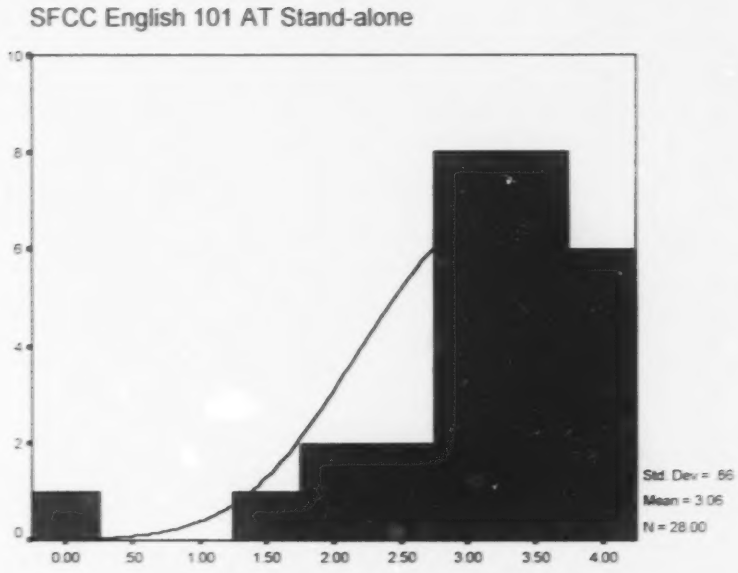
SFCC English 101 E Stand Alone

Graph # 67



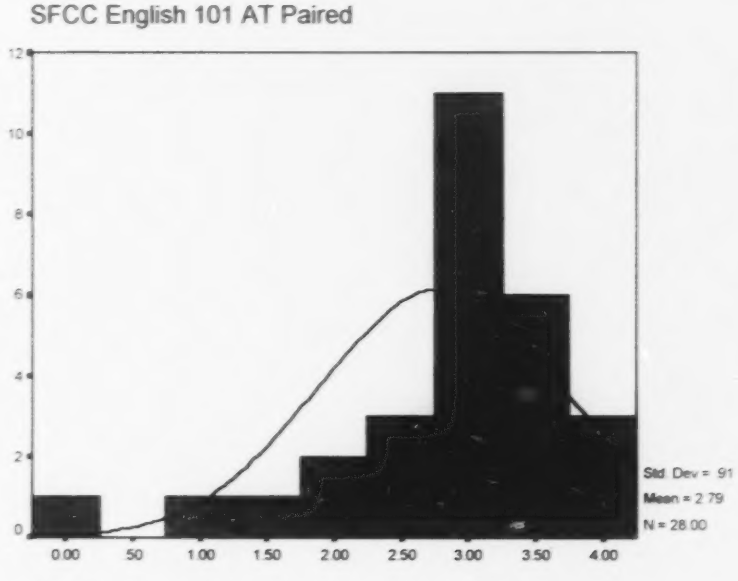
SFCC English 101 M Paired

Graph # 68



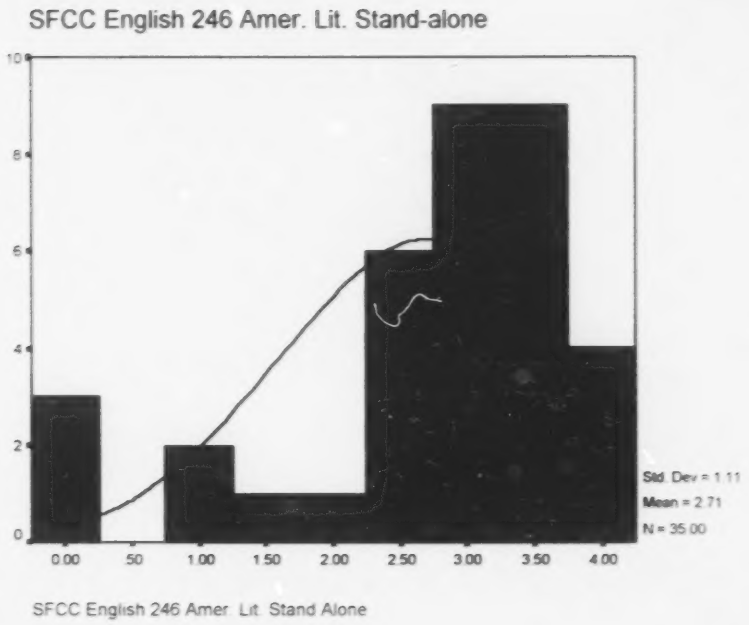
SFCC English 101 A Stand Alone

Graph # 69

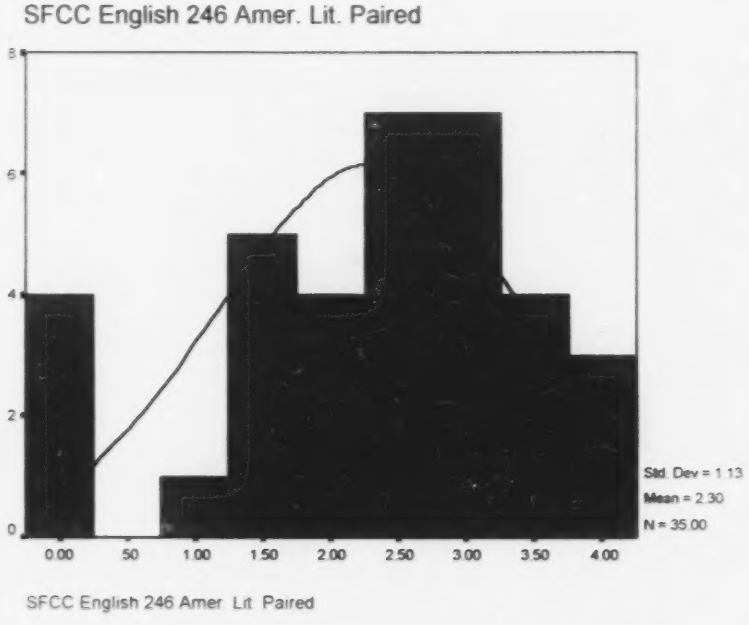


SFCC English 101 A Paired

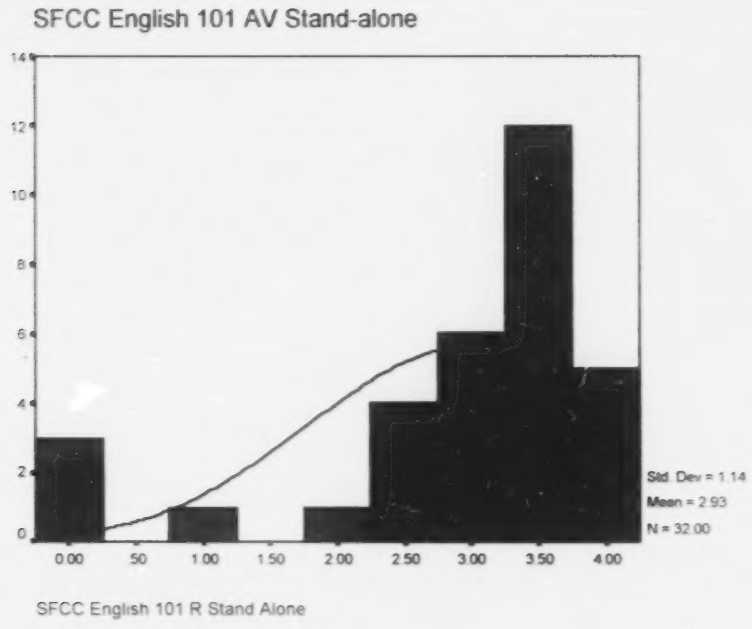
Graph # 70



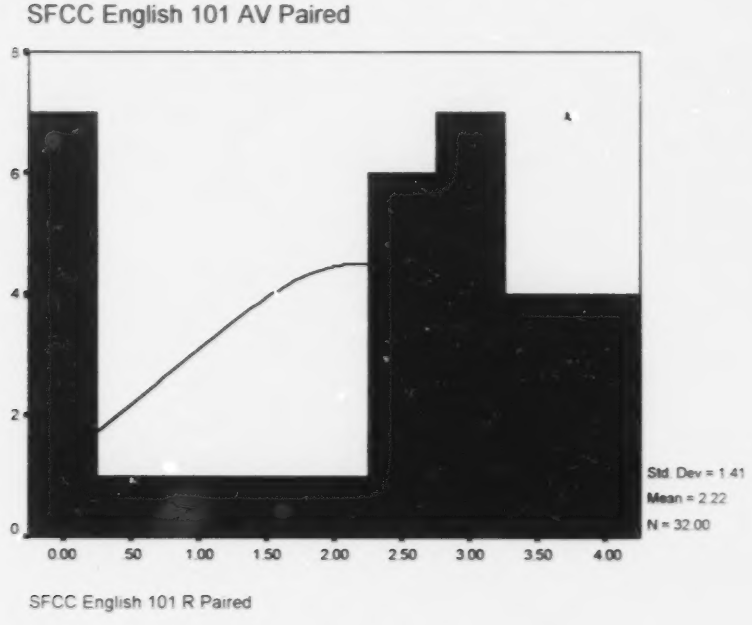
Graph # 71



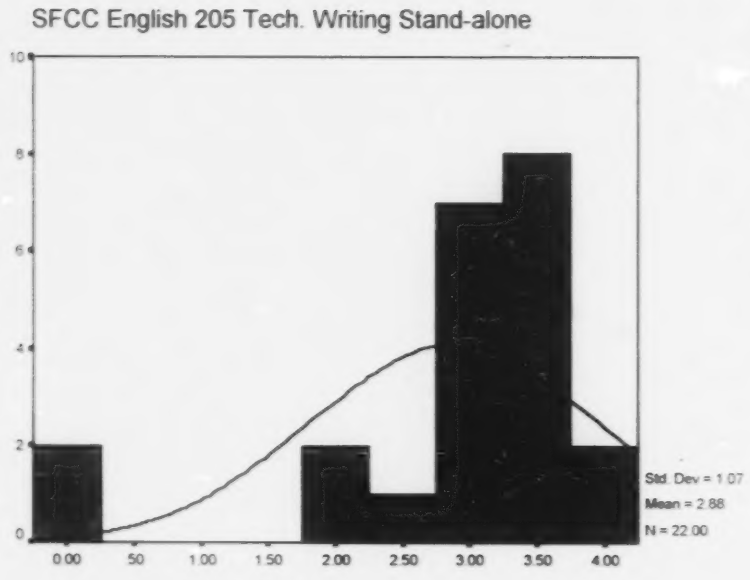
Graph # 72



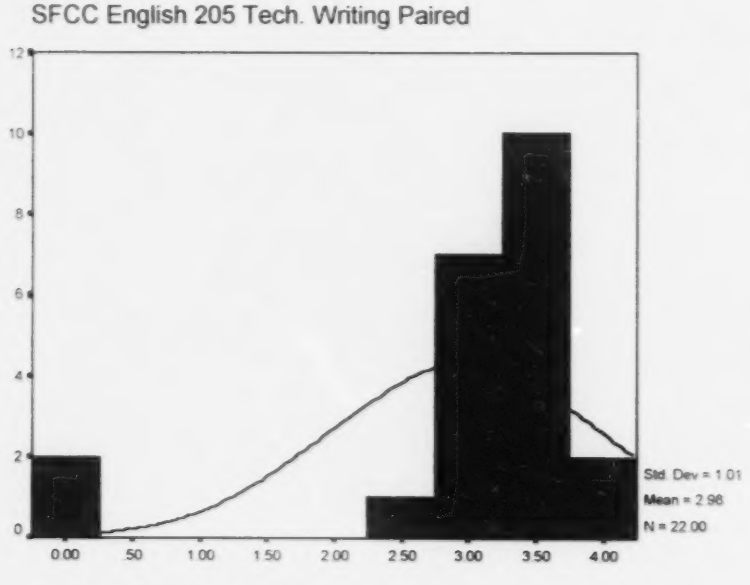
Graph # 73



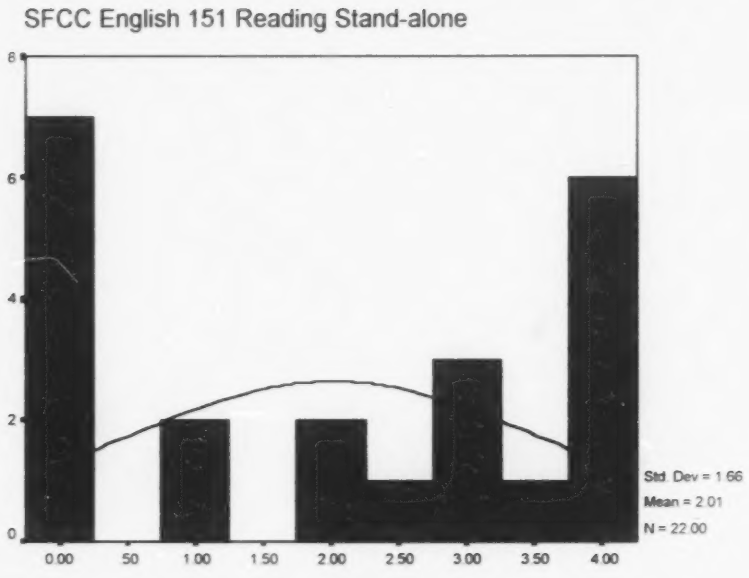
Graph # 74



Graph # 75

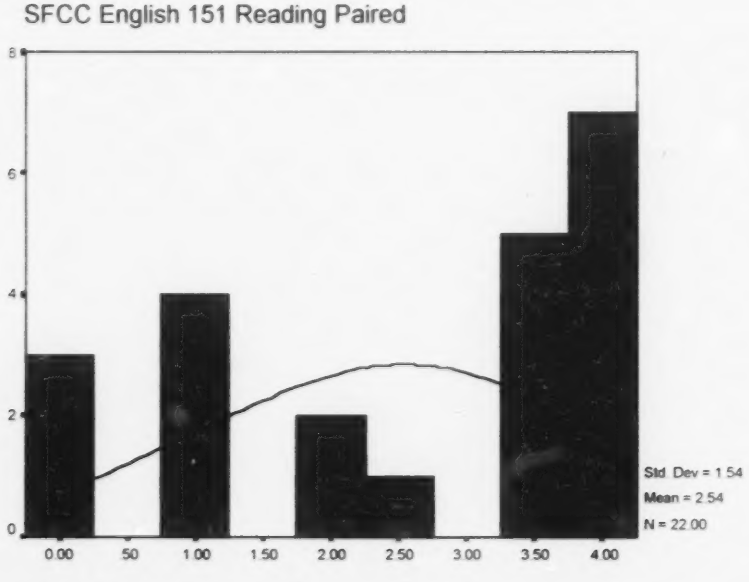


Graph # 76



SFCC English 151 Reading Stand Alone

Graph # 77



SFCC English 151 Reading Paired

APPENDIX C

Table 7 Withdrawals

North Idaho College

SA = Stand-alone FR = freshman status NM = non-matriculated
LC = Learning community SO = sophomore status n = number of students in group

COURSE	INSTRUCTOR	WITHDRAWALS	YEAR IN SCHOOL
Speech 233	A	SA 7 n = 89	FR 25 SO 48 NM 15
Interperson Comm		LC 6 n = 89	FR 52 SO 26 NM 11
Sociology 220	B	SA 2 n = 52	FR 22 SO 24 NM 6
Marriage/Family		LC 3 n = 52	FR 30 SO 14 NM 8
Psychology 205	C	SA 3 n = 88	FR 33 SO 39 NM 16
Developmental		LC 4 n = 88	FR 41 SO 29 NM 18
Psychology 101	C	SA 12 n = 117	FR 69 SO 37 NM 11
Introduction		LC 9 n = 117	FR 109 SO 3 NM 5
English 101	D	SA 1 n = 23	FR 20 SO 3 NM 0
First year comp.		LC 1 n = 23	FR 20 SO 2 NM 1
English 102	D	SA 8 n = 77	FR 31 SO 31 NM 15
Second year comp.		LC 10 n = 77	FR 40 SO 30 NM 7
History 112	E	SA 12 n = 82	FR 43 SO 21 NM 18
U.S. History		LC 14 n = 82	FR 62 SO 12 NM 8
English 101	F	SA 12 n = 67	FR 50 SO 10 NM 7
First year comp.		LC 9 n = 67	FR 64 SO 1 NM 3
English 278	G	SA 1 n = 25	FR 2 SO 7 NM 16

Amer. Literature		LC 5 n = 25	FR 2 SO 15 NM 8
History 111	H	SA 5 n = 22	FR 15 SO 5 LM 2
U.S. History		LC 5 n = 22	FR 13 SO 6 LM 3

Spokane Falls Community College

SA = Stand-lone
LC = Learning community

COURSE	INSTRUCTOR	WITHDRAWALS	GROUP SIZE n
Gen. Studies 106	AA	SA 8	31
College Success		LC 2	31
Art 112	AB	SA 3	26
Nonwestern Art		LC 3	26
Early Child. Ed. 101	AC	SA 4	41
Issues & Trends		LC 6	41
Music 191	AD	SA 5	24
Musical Events		LC 4	24
English 101	AE	SA 0	23
First year comp.		LC 1	23
History 103	AF	SA 3	41
West. Civilization		LC 3	41
Humanities 141	AG	SA 3	85
Film		LC 7	85

COURSE	INSTRUCTOR	WITHDRAWALS	GROUP SIZE n
English 101	AH	SA 3	26
First year comp.		LC 4	26
Art 112	AI	SA 5	31
Nonwestern Art		LC 1	31
HSEAR 106	AJ	SA 0	22
Intro to Deaf Culture		LC 1	22
Psychology 101	AK	SA 7	126
Introduction		LC 2	126
Humanities 141	AL	SA 0	42
Film		LC 2	42
Speech 220	AM	SA 1	52
Intercultural Comm.		LC 3	52
English 101	AN	SA 1	78
First year comp.		LC 4	78
Psychology 101	AO	SA 7	92
Introduction		LC 6	92
Journalism 110	AP	SA 1	40
Mass Media		LC 2	40
Physics 100	AQ	SA 2	24
		LC 2	24

COURSE	INSTRUCTOR	WITHDRAWALS	GROUP SIZE n
English 101	AR	SA 1	33
First year comp.		LC 2	33
English 101	AS	SA 2	27
First year comp.		LC 1	27
English 101	AT	SA 1	28
First year comp.		LC 0	28
English 246	AU	SA 1	35
Amer. Literature		LC 2	35
English 101	AV	SA 1	32
First year comp.		LC 2	32
English 205	AW	SA 1	22
Tech Writing		LC 2	22
English 151	AX	SA 0	22
Reading / Study 1		LC 3	22

APPENDIX E

STUDENT SURVEY - LEARNING COMMUNITIES

Please check those that apply:

__male __freshman __18-23 years old __30 or above
__female __sophomore __24-29 years old

Please circle the number on the scale below signifying the word(s) that best describes your response to the question.

1. To what extent is there evidence of collaboration (working together) by faculty in planning these courses?
Very Much Much Some Little Almost None Don't Know
5 4 3 2 1

2. To what extent have faculty been successful in integrating the subject content into the courses?
Very Much Much Some Little Almost None Don't Know
5 4 3 2 1

3. Compared to stand-alone courses you have taken, to what extent in the learning community classes did you feel comfortable speaking out in class discussions?
Very Much Much Some Little Almost None Don't Know
5 4 3 2 1

4. Compared to the stand-alone courses you have taken, to what extent have these learning community classes captured your interest?
Very Much Much Some Little Almost None Don't Know
5 4 3 2 1

5. Compared to stand-alone courses you have taken, to what extent have these learning community courses challenged you to think?
Very Much Much Some Little Almost None Don't Know
5 4 3 2 1

6. Compared to stand-alone classes you have experienced, to what extent have these learning community classes helped you make connections between disciplines?
Very Much Much Some Little Almost None Don't Know
5 4 3 2 1

7. Compared to stand-alone classes you have taken, to what extent in these learning community classes have you felt a sense of community?

Very Much Much Some Little Almost None Don't Know
5 4 3 2 1

8. To what extent did you feel encouraged to take intellectual risks in these learning community classes?
Very Much Much Some Little Almost None Don't Know
5 4 3 2 1

9. To what extent did the learning community courses help you communicate effectively?
Very Much Much Some Little Almost None Don't Know
5 4 3 2 1

APPENDIX F

Interview Questions for Instructors of Paired Courses

1. What led you to the decision to become involved in teaching a paired course?

2. What are the advantages to teaching a paired course?

3. What are the disadvantages to teaching a paired course?

4. What have you learned as a result of the paired course teaching experience and has that experience affected the way you teach a stand alone class of the same course?

5. Explain how the concepts of learning communities and interdisciplinary connections have emerged in your work with paired and stand alone courses that you teach. What differences do you find between the two concepts in the two types of classes that you teach?

6. What would you say to faculty members who are contemplating teaching a paired course for the first time?

APPENDIX G

Focus Group Interview Topic Guide (revised 12-8-98)

Moderator: Jim Minkler | Interview: Date and Time:

Topic: Learning Communities | Site, Bldg. & Rm.

I. Conduct Warm-up interview

- Initiate small talk before getting started to relax group and set the tone as approachable and informal.
- Explain what your research is about and how you hope it will be used.
- Define your terms: linked and unlinked courses, learning communities, and interdisciplinary connections.
- Explain that the interview is focusing on two groupings of questions.
- Explain that their comments will be anonymous.
- Explain there are no right or wrong answers. You are interested in recording their experiences.
- Feel free to respond to each other's comments, don't wait for me to call on you.
- Please speak clearly and one at a time for the purposes of the recording.

Learning Focus Questions

II. If there is one event that has happened in these linked courses that best demonstrates what a linked course is, what would it be?

- **Could you explain why you chose that experience?**
- **Tell me more.**

III. Did you have a good understanding of what a linked course was when you enrolled in this linkage?

- **Tell me more about that.**
- **Could you explain that?**
- **How did that make you feel?**

- **Give me an example of that.**

IV. Has this course linkage helped you make interdisciplinary connections better than in unlinked courses you have taken?

- **Could you give me an example of that?**
- **Could you explain that?**
- **In what way?**

V. Compared to unlinked courses you have taken, would you say your ability in these linked courses to learn the material presented was worse, the same, or better?

- **Could you explain that?**
- **Could you give me an example of that?**
- **What led you to ranking it in that way?**
- **What about these courses enhanced your learning?**
- **What were the problems that detracted from your learning?**

VI. What have been the greatest barriers in the linked courses?

- **Why is that?**
- **Could you give me an example of that?**
- **Can you pinpoint the cause of that?**
- **What would you recommend be done to remove these barriers?**

VII. Ten years from now, what do you think you will remember about this linked course experience?

- **Why do you think that will be so significant?**
- **I'm curious, could you explain your reasoning behind that?**

Community Focus Questions

VIII. In relation to this class, when I say the words learning community what thoughts come into mind?

- **Do you feel you know your fellow students better than in unlinked classes?**
- **Tell me more about that.**
- **What would you call that feeling?**
- **Do you feel more support from your fellow students?**

IX. Do you feel that you know your instructors any better than in unlinked courses?

- **How does that make you feel?**
- **Could you explain that?**
- **What significance does that have on your interaction with them?**

X. Do you think taking linked courses might encourage students who normally drop out of college to continue?

- **Could you explain that?**

- **What do you think are the reasons for that?**

XI. What would you tell a friend who is thinking about enrolling in linked courses?

- **Why is that?**
- **Could you be more specific?**
- **Would that advice give them a good idea of what to expect?**

XII. Closure of Group

- **Share what you have learned from them.**
- **Ask them what they just learned from each other.**
- **Were you surprised to learn that?**
- **Ask them to rank the questions they liked the most/least.**
- **Thank you for participating in the study.**

References and Selected Bibliography

Aristotle (trans. 1962). Nicomachean ethics (M. Ostwuld, Trans.). New York: Bobbs Merrill.

Astin, A. (1997). How "good" is your institution's retention rate? Research in higher education, 38 (6).

Astin, A. (1993). What matters in college?. San Francisco: Jossey-Bass.

Astin, A. (1985). Achieving educational excellence: A critical assessment of priorities and practices in Higher Education. San Francisco: Jossey-Bass.

Barab, S. & Landa, A. (1997). Designing effective interdisciplinary anchors. Educational leadership, 54, (6).

Barrit, L., Bleeker, H., Beekman, T., Mulderij, K. (1985). Researching education practice. University of North Dakota: Center of Teaching and Learning.

Barr, R., & Tagg, J. (1995). From teaching to learning: A new paradigm for undergraduate education. Change (Nov./Dec.).

Berkeley, G. (1971). A treatise concerning the principles of human understanding. London: Mentson Scholar Press. (Original work published 1734)

Boyer, E. (1987). College: The undergraduate experience in America. New York: Harper & Row.

Boyer, E (1990). Scholarship reconsidered: Priorities of the professoriate. Princeton, New Jersey: A special report by The Carnegie Foundation for the Advancement of Teaching.

Bruffee, K. (1995). Sharing our toys, cooperative learning versus collaborative learning. Change (Jan./Feb.).

Buber, M. (1958). I and thou. Edinburgh: Charles Scribners Sons.

Cambra, R., et al. (1999). Learning communities at the University of Hawai'I – Manoa improving the first-year experience. In J. MacGregor (Comp.), Strengthening learning communites: Case studies from the National Learning Communities Dissemination Project (FIPSE). Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education.

Chesebro, J., Green, R., Mino M., Snider, K & Venable, A (1999, June). Measuring learning community effectiveness: Conceptions, an instrument, and results. Paper presented

at the annual meeting of the American Association of Higher Education Assessment Conference, Denver, CO.

Coulon, A. (1995). Ethnomethodology. Thousand Oaks, CA: Sage Publications.

Davis, J. (1995). Interdisciplinary courses and team teaching. Phoenix: Oryx Press.

Day, A., Johnson, S., LaRue, M., & McGreevy, P. (1999). "Making connections" on a shoestring at Clarion University of Pennsylvania. In J. MacGregor (Comp.), Strengthening learning communities: Case studies from the National Learning Communities Dissemination Project (FIPSE). Olympia, WA: The Evergreen State Community College, Washington Center for Improving the Quality of Undergraduate Education.

Della-Piana, C., et al. (1999). Learning communities in science, engineering, and mathematics: Creating and sustaining curricular innovation at the University of Texas at El Paso. In J. MacGregor (Comp.), Strengthening learning communities: Case studies from the National Learning Communities Dissemination Project (FIPSE) . Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education.

Dewey, J. (1938). Experience and education. New York: Macmillan.

Dewey, J. (1916). Democracy and education. New York: Macmillan.

Donath, J. (1999). If we build it, will they come? The learning community program as an institutional structure at California State University, Sacramento. In J. MacGregor (Comp.), Strengthening learning communities: Case studies from the National Learning Communities Dissemination Project (FIPSE). Olympia, WA: The Evergreen State College, Washington Center for the Improving the Quality of Undergraduate Education.

Drucker, J., Mino, J, & Singh, R. (1999). How long is the coast of Holyoke Community College? In J. MacGregor (Comp.), Strengthening learning communities: Case studies from the National Learning Communities Dissemination Project (FIPSE). Olympia, WA: The Evergreen State College, Washington Center for the Improving the Quality of Undergraduate Education.

Fogarty, J., et al. (1999). Delta College learning communities: An adventure in curricular reform. In J. MacGregor (Comp.), Strengthening learning communities: Case studies from the National Dissemination Project FIPSE. Olympia, WA: The Evergreen State College, Washington Center for the Improving of Undergraduate Education.

Gabelnick, F. (1997). Educating a committed citizenry. Change (Jan./Feb.).

Gabelnick, F., MacGregor J., Matthews, R., & Smith, B. (1990). Learning communities: Building connections among disciplines, students, and faculty. New directions in teaching and learning 41, San Francisco: Jossey Bass.

Gaff, J. (1994). The revival of general education. In Strong foundations (prepared by participants in the project on strong foundations for general education). Washington: The Association of American Colleges.

Gammill, L., Hansen, C., & Tinkler, S. (1992). Linked courses: A method to reinforce basic skills. Journal of Education for Business (Jul/Aug).

Geri, L., Kuehn, D. & MacGregor, J. (1999). From innovation to reform: Reflections on case studies of 19 learning community initiatives. In J. MacGregor (Comp.), Strengthening learning communities: Case studies from the National Learning Communities Dissemination Project (FIPSE). Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education.

Gill, J. (1993). Learning to learn: Toward a philosophy of education. NJ: Humanities Press.

Gilligan, C. (1982). In a difference voice: Psychological theory and women's development. Cambridge, Mass: Harvard University Press.

Gordon, T., et al. (1999). Connections...freshman learning communities at Illinois State University; where we've been and where we are going. In J. MacGregor (Comp.), Strengthening learning communities: Case studies from the National Learning Communities Dissemination Project (FIPSE). Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education.

Heidegger, M. (1962). Being in time (J. Macquarrie & E. Robinson, Trans.) New York: Harper & Row.

Hill, P. (1985). The rationale for learning communities. Transcribed from a speech given at the Inaugural Conference on Learning Communities of The Washington Center for Undergraduate Education.

Husserl, E. (1931). Ideas: General introduction to pure phenomenology (D. Carr, Trans.). Evanston, IL: Northwestern University Press.

Jackson-Evans, P., Van Middlesworth, C.with the The Metropolitan Community Colleges Learning Community Steering Committee and the Learning Community Executive Committee (1999). Metropolitan Community Colleges learning communities case study: Ride on John Dewey!!!" In J. MacGregor (Comp.). Strengthening learning communites: Case studies from the National Learning Communities Dissemination Project (FIPSE).

Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education.

Learning community listserve. Learncom@listserv.temple.edu.

MacGregor, J. (Comp). (1999). Strengthening learning communities: Case studies from the National Learning Communities Dissemination Project (FIPSE) Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education.

MacGregor, J. (1994). Learning communities taking root. Washington Center news, 8 (2). Olympia, WA: The Evergreen State College.

MacGregor, J. (1990). Collaborative learning: Shared inquiry as a process of reform. New directions for teaching and learning, 42. San Francisco: Jossey Bass.

MacGregor, J. & Smith, B. (1993). Collaborative learning: Hearing many voices learning one. Washington Center news, 7, (3). Olympia, WA: The Evergreen State College.

Martinez, B. (1999). Building bridges, tearing down walls: Collaborating to support students at California State University – Los Angeles. In J. MacGregor (Comp.), Strengthening learning communities: Case studies from the National Learning Communities Dissemination Project (FIPSE). Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education.

Masterson, J., Schumm, J., McIntire, A., Newman, R., (1999). Learning communities at the University of Miami: Transforming the culture. In J. MacGregor (Comp.), Strengthening learning communities: Case studies from the National Learning Communities Dissemination Project (FIPSE). Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education.

Matthews, R., Cooper, J., Davidson, N., & Hawkes, P. (1995). Building bridges between cooperative and collaborative learning. Change (Jul/Aug).

Mckinnon, D. (1997). Curriculum innovation involving subject integration, field-based learning environments and information technology: A longitudinal case study of student attitudes, motivation, and performance. ERIC document (ED408350).

McLaughlin, T. (1996). Taking a look at learning communities nationally. Washington Center News, 10 (2).

Meiklejohn, A. (1932). The Experimental College. New York: Harper & Row.

Meiklejohn, A. (1920). The Liberal College. Boston: Marshall Jones Company.

Merleau-Ponty, M. (1962). Phenomenology of Perception. (C. Smith, Trans). News York: Humanities Press.

Miles, M., & Huberman, A. (1994). Qualititative Data Analysis, 2nd ed. Newbury Park, CA: Sage.

Mott, J., et al. (1999). "Get connected" at William Rainey Harper College: Legitimizing learning communities. In J. MacGregor (Comp.), Strengthening learning communities: Case studies from the National Learning Communities Dissemination Project (FIPSE). Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education.

Nishida, K. (1990). An Inquiry into the Good. (M. Abe & C. Ives, Trans.). New Haven: Yale University Press.

Noddings, N. (1984). Caring, a feminine approach to ethics & moral education. Berkeley: University of California Press.

Norusis, M. (1997). SPSS 7.5 Guide to Data Analysis. Upper Saddle River, N.J.: Prentice-Hall, Inc.

O'Connor, J., Gentemann K., & Oates, K. (1999). Learning communities as the base for Integrative and interdisciplinary studies: New Century College at George Mason University. In J. MacGregor (Comp.), Strengthening learning communities: Case studies from the National Learning Communities Disseminaiton Project (FIPSE). Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education.

Oitzinger, J., et al. (1999). Learning communities in the University of Wisconsin colleges: Building new bridges. In J. MacGregor (Comp.), Strengthening learning communities: Case studies From the National Learning Communities Dissemination Project (FIPSE). Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education.

Ortega y Gasset, J. (1936). The mission of the university. New York: Bantam.

Palmer, P. (1983). To know as we are known: Education as a spiritual journey. San Francisco: Harper & Rowe.

Paul, R. (1993). Critical thinking: What every person needs to survive in a rapidly changing world. Santa Rosa, CA: Foundation for Critical Thinking.

Perin, D. (1999). Using academic-occupational integration to improve remedial instruction. Community College Journal (Apr/May).

Polanyi, M. (1962). Personal knowledge: Towards a post-critical philosophy. Chicago: University of Chicago Press.

Richard, P., Sandell, K., Bernard, T., & Hogan, T. (1999). Linked course and longitudinal learning community pilots at Ohio University: Grist for a general education review. In J. MacGregor (Comp.), Strengthening learning communities: Case studies from the National Learning Communities Dissemination Project (FIPSE). Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education.

Rifkin, J. (1995). The end of work: The decline of the global labor force and dawn of the post-market era. New York: G.P. Putnam's Sons.

Rings, S., Shovers, B., Skinner, E., & Siefer, N. (1999). Learning communities in The Maricopa Community Colleges: A faculty-driven initiative moving toward district impact. In J. MacGregor (Comp.), Strengthening learning communities: Case studies from the National Learning Communities Dissemination Project (FIPSE). Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education.

Sarkela, S., Schwob, T., & Thompson, J. (1999). Learning communities at SUNY Potsdam: Traditions of innovation. In J. MacGregor (Comp.), Strengthening learning communities: Case studies from the National Learning Communities Dissemination Project (FIPSE). Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education.

Sartre, J. P. (1956). Being and nothingness (H. Barnes, Trans.) New York: Philosophical Library.

Senge, P. (1990). The fifth discipline: The art and practice of the learning organization. New York: Doubleday/Currency.

Smith, B. (1994). Team teaching. Handbook of College Teaching. (K. Prichard and B. Mclarn Sawyer, eds.). Greenwood Press.

Smith, B. (1991). Taking structure seriously, the learning community model. Liberal Education, 77 (2).

Smith, B. & Hunter, M. (1988). Learning communities: A paradigm for educational revitalization. Community College Review, 15 (4).

Spencer, M., et al. (1999). Triads at Texas A&M University – Corpus Christi: A core curriculum commitment to freshmen. In J. MacGregor (Comp.), Strengthening learning communities: Case studies from the National Learning Communities Dissemination Project

(FIPSE). Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education.

Tinto, V. (1994). Constructing educational communities: Increasing retention in challenging circumstances. Community College Journal, 64, (4).

Tinto, V.(1993). Building community. Liberal Education, 79.

Tinto, V. (Feb. 1990). Principles of effective retention. Journal of the FreshmanYear Experience, 2 (1).

Tinto, V. (1982). Limits of theory and practice in student attrition. Journal of Higher Education, 53 (6).

Tinto, V. (1988). Stages of student departure: Reflections on the longitudinal character of student leaving. Journal of Higher Education, 59, (4).

Tinto, V., Goodsell Love, A., & Russo, P. (1994). Building learning communities for new college students: A summary of research finding of the collaborative learning project. Syracuse University: National Center on Postsecondary Teaching, Learning, and Assessment.

Tollefson, G. (1990). Collaborative learning communities in Washington community colleges. Unpublished Ph.D. dissertation, Seattle University.

Tussman, J. (1969). Experiment at Berkeley. London: Oxford University Press.

Van Manen, M. (1990). Researching lived experience: Human science for an action sensitive pedagogy. London, Ontario, Canada: SUNY Press.

Walker, D. (1996). Integrative education: Empowering students to learn. Oregon School Study Council. Eugene, OR: University of Oregon.

Westley, J. (1991). Houses theme works: An integrated curriculum for young children. St. Worth, IL: Creative Publications.

Whitehead, A. (1929). The aims of education and other essays. New York: Macmillan Company.

Wolcott, H. (1996). Writing up qualitative research. Thousand Oaks, CA: Sage.